

July 2019 | Draft Environmental Impact Report
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LONGFELLOW ELEMENTARY SCHOOL EXPANSION

Riverside Unified School District

Prepared for:

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Abbreviations and Acronyms

ABBREVIATIONS AND ACRONYMS

AAQS	ambient air quality standards
AB	Assembly Bill
ACM	asbestos-containing materials
ADT	average daily traffic
amsl	above mean sea level
AQMP	air quality management plan
AST	aboveground storage tank
BAU	business as usual
bgs	below ground surface
BMP	best management practices
CAA	Clean Air Act
CAFE	corporate average fuel economy
CalARP	California Accidental Release Prevention Program
CalEMA	California Emergency Management Agency
Cal/EPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Cal/OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources, Recycling, and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
cfs	cubic feet per second
CGS	California Geologic Survey
CMP	congestion management program

Abbreviations and Acronyms

CNDDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CO	carbon monoxide
CO ₂ e	carbon dioxide equivalent
Corps	US Army Corps of Engineers
CSO	combined sewer overflows
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dba	A-weighted decibel
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EIR	environmental impact report
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gases
GWP	global warming potential
HCM	Highway Capacity Manual
HQTA	high quality transit area
HVAC	heating, ventilating, and air conditioning system
IPCC	Intergovernmental Panel on Climate Change
L _{dn}	day-night noise level
L _{eq}	equivalent continuous noise level
LBP	lead-based paint
LCFS	low-carbon fuel standard
LOS	level of service
LST	localized significance thresholds
M _w	moment magnitude
MCL	maximum contaminant level
MEP	maximum extent practicable

Abbreviations and Acronyms

mgd	million gallons per day
MMT	million metric tons
MPO	metropolitan planning organization
MT	metric ton
MWD	Metropolitan Water District of Southern California
NAHC	Native American Heritage Commission
NO _x	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
O ₃	ozone
OES	California Office of Emergency Services
PM	particulate matter
POTW	publicly owned treatment works
ppm	parts per million
PPV	peak particle velocity
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RMP	risk management plan
RMS	root mean square
RPS	renewable portfolio standard
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SIP	state implementation plan
SLM	sound level meter
SoCAB	South Coast Air Basin
SO _x	sulfur oxides
SQMP	stormwater quality management plan
SRA	source receptor area [or state responsibility area]
SUSMP	standard urban stormwater mitigation plan
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board

Abbreviations and Acronyms

TAC	toxic air contaminants
TNM	transportation noise model
tpd	tons per day
TRI	toxic release inventory
TTCP	traditional tribal cultural places
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
UWMP	urban water management plan
V/C	volume-to-capacity ratio
VdB	velocity decibels
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled
VOC	volatile organic compound
WQMP	water quality management plan
WSA	water supply assessment

1. Executive Summary

1.1 INTRODUCTION

This draft environmental impact report (Draft EIR) addresses the environmental effects associated with the implementation of the proposed Longfellow Elementary School Expansion. The California Environmental Quality Act (CEQA) requires that local government agencies consider the environmental consequences before taking action on projects over which they have discretionary approval authority. An EIR analyzes potential environmental consequences in order to inform the public and support informed decisions by local and state governmental agency decision makers.

This Draft EIR has been prepared pursuant to the CEQA (Public Resources Code [PRC], Division 13, Section 21000 et seq. [CEQA Statute] and the California Code of Regulations [CCR], Title 14, Division 6, Chapter 3, Section 15000 et seq. [CEQA Guidelines]. The RUSD, as the lead agency, has reviewed and revised all submitted drafts, technical studies, and reports as necessary to reflect its own independent judgment, including reliance on City technical personnel from other departments and review of all technical subconsultant reports.

Data for this Draft EIR derive from onsite field observations, discussions with affected agencies, analysis of adopted plans and policies, review of available studies, reports, data and similar literature, and specialized environmental assessments.

1.2 ENVIRONMENTAL PROCEDURES

This Draft EIR has been prepared pursuant to CEQA to assess the environmental effects associated with implementation of the proposed project, as well as anticipated future discretionary actions and approvals. CEQA established six main objectives for an EIR:

1. Disclose to decision makers and the public the potential, significant environmental effects of proposed activities.
2. Identify ways to avoid or reduce environmental impacts.
3. Prevent environmental impacts by requiring implementation of feasible alternatives and/or mitigation measures.
4. Disclose to the public reasons for agency approval of projects with significant unmitigable environmental effects.
5. Foster interagency coordination in the review of projects.

1. Executive Summary

6. Enhance public participation in the planning process.

An EIR is the most comprehensive form of environmental documentation in CEQA and the CEQA Guidelines; it is intended to provide an objective, factually supported analysis and full disclosure of the environmental consequences of a proposed project with the potential to result in significant, adverse environmental impacts.

An EIR is one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Before approving a proposed project, the lead agency must consider the information in the EIR; determine whether the EIR was prepared in accordance with CEQA and the CEQA Guidelines; determine that it reflects the independent judgment of the lead agency; adopt findings concerning the project's significant environmental impacts and alternatives; and adopt a statement of overriding considerations if significant impacts cannot be avoided.

1.2.1 EIR Format

Chapter 1. Executive Summary: Summarizes the background and description of the proposed project, the format of this EIR, project alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and required mitigation measures.

Chapter 2. Introduction: Describes the purpose of this EIR, background on the project, the Notice of Preparation (NOP), the use of incorporation by reference, and Final EIR certification.

Chapter 3. Project Description: A detailed description of the project, including its objectives, its area and location, approvals anticipated to be required as part of the project, necessary environmental clearances, and the intended uses of this EIR.

Chapter 4. Environmental Setting: A description of the physical environmental conditions in the vicinity of the project as they existed at the time the notice of preparation was published, from local and regional perspectives. These provide the baseline physical conditions from which the lead agency determines the significance of the project's environmental impacts.

Chapter 5. Environmental Analysis: Each environmental topic is analyzed in a separate section that discusses: the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the project; the existing environmental setting; the potential adverse and beneficial effects of the project; the level of impact significance before mitigation; the mitigation measures for the proposed project; the level of significance after mitigation is incorporated; and the potential cumulative impacts of the proposed project and other existing, approved, and proposed development in the area.

Chapter 6. Significant Unavoidable Adverse Impacts: Describes the significant unavoidable adverse impacts of the proposed project.

Chapter 7. Alternatives to the Proposed Project: Describes the alternatives and compares their impacts to the impacts of the proposed project. See Section 1.5.

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Chapter 8. Impacts Found Not to Be Significant: Analyzes the potential impacts of the project that were determined not to be significant by the Initial Study and were therefore not discussed in detail in this EIR.

Chapter 9. Significant Irreversible Changes Due to the Proposed Project: Describes the significant irreversible environmental changes associated with the project.

Chapter 10. Growth-Inducing Impacts of the Project: Describes the ways in which the proposed project would cause increases in employment or population that could result in new physical or environmental impacts.

Chapter 11. Persons Preparing EIR: Lists the people who prepared this EIR for the proposed project.

Chapter 12. Bibliography: Is a compilation of the resources cited in each section and includes the technical reports and other sources used to prepare this EIR.

Appendices: The appendices for this document (in PDF format on a CD attached to the front cover) comprise these supporting documents:

- Appendix A: Notice of Preparation and Comments
- Appendix B: Air Quality and Greenhouse Gas Emissions Background and Modeling Data
- Appendix C: Historic Resource Evaluation Report
- Appendix D: Geological and Environmental Hazards Assessment Report
- Appendix E: Phase I Environmental Site Assessment
- Appendix F: Noise and Vibration Background and Modeling Data
- Appendix G: Traffic and Parking Technical Memorandum

1.2.2 Type and Purpose of This Draft EIR

This Draft EIR has been prepared as a “Project EIR,” defined by § 15161 of the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3). This type of EIR examines the environmental impacts of a specific development project and should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction, and operation.

1.3 PROJECT LOCATION

The project site is in the City of Riverside in northwestern Riverside County. The proposed project site consists of:

Longfellow Elementary School at 3610 Eucalyptus Avenue in the City of Riverside in Riverside County. The school is in the central part of the City about one mile south of the State Route 91 (SR-91)/SR-60 interchange and about 0.9 mile east of Riverside City Hall. Most of the approximately 6.9-acre campus is in two blocks surrounded by Sixth Street to the north, Eucalyptus Avenue to the west, Franklin Avenue to the

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east, and a dirt alley to the south. The school has two parking lots: one at the northeast corner of Eucalyptus Avenue and Sixth Street, and one at the northeast corner of Franklin Avenue and Seventh Street.

Two parcels developed with single-family residences: 2210 Seventh Street (Assessor's Parcel Number [APN] 211-143-008) and 2226 Seventh Street (APN 211-143-007). The parcels are in the northeast corner of the southerly of the two blocks containing most of the campus (see Figure 3-3, *Aerial Photograph*).

Seventh Street cul-de-sac next to the two residences and the east campus boundary.

Alley segment abutting the south end of the two residential parcels.

1.4 PROJECT SUMMARY

The project would involve acquisition and demolition of two residential properties; vacate the cul-de-sac portion of Seventh Street and relocate utilities; construction of three new buildings (one 2-story classroom building with ten classrooms, one 1-story classroom building with two classrooms, and one 1-story administration building); modernization of six buildings, including safety and security improvements, updating instructional technology, and ADA improvements; and renovation of the existing administration building into a Parent Center/Classroom and Daycare building. The project would develop several new play areas and one new parking lot with 40 spaces.

1.5 SUMMARY OF PROJECT ALTERNATIVES

CEQA requires that a Draft EIR include a discussion of reasonable project alternatives that would “feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives” (CEQA Guidelines Section 15126.6). The following three project alternatives were identified and analyzed for relative impacts as compared to the proposed project:

- No Project Alternative
- No Acquisition Alternative
- Integrated Historic Resource Alternative

The following presents a summary of the alternatives analyzed in the Draft EIR. These alternatives were developed to avoid or substantially lessen the significant impacts the project could have on historical resources. Please refer to Chapter 7 of this Draft EIR for a complete discussion of each of the alternatives and their associated impacts.

1.5.1 No Project Alternative

CEQA Guidelines require the analysis of a No Project Alternative. This analysis must discuss the existing site conditions as well as what would be reasonably expected to occur in the foreseeable future based on any current plans if the project were not approved.

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Under the No Project Alternative, the property acquisition, expansion, and campus improvements would not occur at Longfellow Elementary School, and the campus would remain in its current state. Without the building improvements, such as repairs to windows, ceilings, flooring roofing, lighting, and electrical, the condition of the permanent buildings would continue to deteriorate. Students would continue to attend classes in old, outdated portable buildings. Additionally, students would continue to attend classes in classrooms that do not accommodate the needs of the educational programs and do not comply with the California Department of Education's or District's standard classroom space of 960 square feet. Utilities and buildings would continue to operate in an inefficient manner (e.g., water and electricity). Finally, student drop-off/pick-up would continue to be spread out on adjacent streets.

1.5.2 No Acquisition Alternative

Under the No Acquisition Alternative, the District would not acquire the two residential properties, the cul-de-sac, or the alley. Other project components would be implemented similar to the proposed project, including removal of portables, construction of the three buildings, modernization of the five buildings, and conversion of the administration building (attached to Building F) to parent center/classroom and day care.

The new parking lot would not be constructed, and student drop-off/pick-up would continue on surrounding streets. The proposed two-story classroom building in this alternative would be moved about 25 feet west, away from the residential properties. Without the acquisition of the adjacent residential properties, cul-de-sac, and alley, the new buildings would take up additional space on the campus, and hardcourt and playground space would be reduced.

1.5.3 Integrated Historic Resource Alternative

Under the Integrated Historic Resource Alternative, the RUSD would acquire the two residential properties, cul-de-sac, and alley; however, the house at 2226 Seventh Street (historic resource) would be retained for reuse by the District. The 2210 Seventh Street property, cul-de-sac, and alley would be cleared for construction of a single-lane, one-way, on-campus student drop-off/pick-up lane and one row of parking.

The house at 2226 Seventh Street would be maintained for administrative and possible community use. Because it would not comply with Field Act standards, the house would not be used for classroom space. Other project components would be implemented similar to the proposed project, including removal of portables, construction of the three buildings, modernization of the five buildings, and conversion of the administration building to parent center/classroom and day care.

1.6 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the proposed project, the major issues to be resolved include decisions by the lead agency as to:

1. Whether this Draft EIR adequately describes the environmental impacts of the project.

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2. Whether the benefits of the project override the environmental impacts which cannot be feasibly avoided or mitigated to a level of insignificance.
3. Whether the proposed land use changes are compatible with the character of the existing area.
4. Whether the required mitigation measures should be adopted or modified.
5. Whether there are other mitigation measures that should be applied to the project besides the one identified in this Draft EIR.
6. Whether there are any better alternatives to the project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic project objectives.

1.7 AREAS OF CONTROVERSY

Comments regarding the historic building and the proposed project have been received by the District in response to the project-related Notice of Preparation. Loss of a historic building is a concern.

1.8 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Table 1-1 summarizes the conclusions of the environmental analysis contained in this EIR. Impacts are identified as significant or less than significant, and mitigation measures are identified for all significant impacts. The level of significance after compliance with the mitigation measures is also shown.

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Table 1-1 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
CULTURAL RESOURCES			
Impact 5.2-1. The project would cause a substantial adverse change in the significance of local historic resource	Significant	<p>CUL-1 To reduce impacts to the Seventh Street East Historic District from demolition of the 2226 Seventh Street property, the Riverside Unified School District shall implement tasks A and B. If Measure B is implemented but cannot be completed, then Riverside Unified School District shall implement Measure C. Finally, as a last resort, Measure D shall be implemented. The Riverside Cultural Heritage Board shall remain apprised of each step in this process.</p> <p>Measure A. Recordation</p> <ol style="list-style-type: none"> 1. The RUSD shall retain a qualified professional to document the 2226 Seventh Street property. The professional shall meet the following qualifications: a) Architectural Historian and/or Historian meeting the Secretary of the Interior's Professional Qualifications Standards, b) demonstrated experience in creating HABS Level II documentation, c) recommended by the Riverside Cultural Heritage Board. 2. The qualified professional shall prepare a HABS-like Level II document in accordance with the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation. Information on the Standards and Guidelines is available at the following links: http://www.nps.gov/history/local-law/arch_stnds_6.htm and http://www.nps.gov/history/hdp/standards/index.htm. The documentation shall include, but not be limited to, the following. <ol style="list-style-type: none"> a. Photographs with large-format black-and-white negatives (4 inches by 5 inches or larger) of the property as a whole shall be provided; photocopies with large format negatives of select existing drawings, site plans, or historic views where available. A minimum of 12 views showing context and relationship of historical resources to each other shall be provided; aerial views showing the whole property shall also be provided. These shall be produced by a photographer with experience preparing large-format photography to the HABS standard. b. Written historical descriptive data, index to photographs, and photo key plan shall be provided. Because, there is no known architectural plans a not-to-scale sketch of the floor plan shall be prepared and included as an attachment to the history. 	Significant and Unavoidable

1. Executive Summary

Table 1-1 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>3. The above items (collectively considered the Documentation Package) shall be prepared prior to any demolition or relocation work.</p> <p>4. Four copies of the documentation package shall be created and shall be distributed to four of the following repositories for use by future researchers and educators. Before submitting any documents, each of the following repositories shall be contacted to ensure that they are willing and able to accept the items: City of Riverside Public Library; Riverside Cultural Heritage Board; Riverside County Public Library; and City of Riverside Planning Department and the Historic Preservation, Neighborhoods and Urban Design Team.</p> <p>Measure B. Third Party Sale Within District</p> <p>1. Riverside Unified School District shall offer the house at 2226 Seventh Street public for sale and offsite relocation consistent with 1989 Resolution #7B and within the boundaries of the Seventh Street East Historic District.</p> <p>2. The historical resource shall be advertised by the RUSD at a minimum in the following locations: RUSD website (if applicable); City of Riverside website; <i>Press-Enterprise Telegram</i> website and print editions. This advertisement may run concurrent with Measure C-1, but shall specifically state the preference for Measure B.</p> <p>3. The bidding period shall remain open for 60 days after the date of advertisement to allow adequate response time from interested parties. The offer shall provide 90 days in which to effect relocation of the house within the boundaries of the Seventh Street East Historic District. The receiving party shall be responsible for all costs related to relocation and renovation.</p> <p>4. Qualified parties shall meet the following minimum qualifications to be considered a realistic buyer: possess adequate financial resources to relocate and rehabilitate the historical resource; possess an available location for the historical resource; and provide for a use for the historical resource.</p> <p>5. The Riverside Cultural Heritage Board shall approve the qualified buyer. If no such buyer comes forward within the allotted time frame, the RUSD can elect to demolish the historical resource, only after compliance with all other requirements outlined in Mitigation Measure CUL-1.</p>	

1. Executive Summary

Table 1-1 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Measure C. Third Party Sale Outside District</p> <ol style="list-style-type: none"> 1. The historic resource shall be advertised by the RUSD at a minimum in the following locations: RUSD website (if applicable); City of Riverside website; <i>Press-Enterprise Telegram</i> website and print editions. 2. The bidding period shall remain open for 60 days after the date of advertisement to allow adequate response time from interested parties. The offer shall provide 90 days in which to effect relocation of the house outside the boundaries of the Seventh Street East Historic District. The receiving party shall be responsible for all costs related to relocation and renovation. 3. Qualified parties shall meet the following minimum qualifications to be considered a realistic buyer: possess adequate financial resources to relocate and rehabilitate the historical resource; possess an available location for the historical resource; and provide for a use for the historical resource. 4. The Riverside Cultural Heritage Board shall approve the qualified buyer. If no such buyer comes forward within the allotted time frame, the RUSD can elect to demolish the historical resource, only after compliance with all other requirements outlined in Mitigation Measure CUL-1. <p>Measure D. Salvage and Reuse</p> <ol style="list-style-type: none"> 1. If offsite relocation of the historical resource by a third party is not accomplished, the RUSD shall retain a professional to prepare a salvage and reuse plan the identifies elements and materials of the resource (house) that can be saved prior to any demolition work. <ol style="list-style-type: none"> a. The salvage and reuse plan shall be included in bid documents prepared for the site and shall be created by an architectural historian or historic preservation professional meeting the Secretary of the Interior's Professional Qualifications Standards with demonstrated experience in creating salvage and reuse plans. b. Elements and materials that may be salvageable include windows; doors; roof tiles; decorative elements; bricks, foundation materials, and/or paving materials; framing members; furniture; lighting; and flooring materials, such as tiles and hardwood. 2. The RUSD shall contact groups interested in receiving the salvaged items. The following steps shall be taken by the RUSD 	

1. Executive Summary

Table 1-1 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<ol style="list-style-type: none">a. Identification of the individuals, organizations, or businesses interested in receiving the salvaged items shall be completed in consultation with the Riverside Cultural Heritage Board and shall only include those approved by the Board.b. Identification of the those interested in receiving the salvaged items shall be accomplished by direct contact.c. If none of the contacted parties are able to receive the items, items to be salvaged shall be advertised in the <i>Press-Enterprise Telegram</i> for a maximum of 60 days.3. The RUSD shall remove salvageable items in the gentlest, least destructive manner possible. Historic materials and features shall be protected by storing salvaged items in indoor, climate- and weather-controlled conditions until recipients can retrieve them. The removal of salvageable items shall be performed by a licensed contractor with demonstrated experience with implementing salvage and reuse plans for historic buildings.	

2. Introduction

2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act (CEQA) requires that all state and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority before taking action on those projects. This draft environmental impact report (Draft EIR) has been prepared to satisfy CEQA and the CEQA Guidelines. The EIR is the public document designed to provide decision makers and the public with an analysis of the environmental effects of the proposed project, to indicate possible ways to reduce or avoid environmental damage and to identify alternatives to the project. The EIR must also disclose significant environmental impacts that cannot be avoided; growth inducing impacts; effects not found to be significant; and significant cumulative impacts of all past, present, and reasonably foreseeable future projects.

The lead agency means “the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment” (Guidelines § 21067). The Riverside Unified School District (RUSD or District) has the principal responsibility for approval of the Longfellow Elementary School Expansion project. For this reason, the District is the CEQA lead agency for this project.

The intent of the Draft EIR is to provide sufficient information on the potential environmental impacts of the proposed Longfellow Elementary School Expansion project to allow the District to make an informed decision regarding approval of the project. Specific discretionary actions to be reviewed by the District are described in Section 3.4, *Intended Uses of the EIR*.

This Draft EIR has been prepared in accordance with requirements of the:

- California Environmental Quality Act (CEQA) of 1970, as amended (Public Resources Code, §§ 21000 et seq.)
- State Guidelines for the Implementation of the CEQA of 1970 (CEQA Guidelines), as amended (California Code of Regulations, §§ 15000 et seq.)

The overall purpose of this Draft EIR is to inform the lead agency, responsible agencies, decision makers, and the general public about the environmental effects of the development and operation of the proposed Longfellow Elementary School Expansion project. This Draft EIR addresses effects that may be significant and adverse; evaluates alternatives to the project; and identifies mitigation measures to reduce or avoid adverse effects.

2. Introduction

2.2 NOTICE OF PREPARATION

The Riverside Unified School District (District) determined that an EIR would be required for this project and issued a Notice of Preparation (NOP) on December 21, 2018 (see Appendix A). The NOP public comment period was from December 21, 2018, to January 21, 2019. During the NOP comment period five comment letters were received (see Appendix A):

- Department of Toxic Substances Control
- South Coast Air Quality Management District
- City of Riverside, Community Development Department
- Agua Caliente Band of Cahuilla Indians
- San Manuel Band of Mission Indians

The NOP process helps determine the scope of the environmental issues to be addressed in the Draft EIR. Based on this process, certain environmental categories were identified as having the potential to result in significant impacts; these are in Chapter 5. The remaining topics identified as Less Than Significant or No Impact are analyzed in Chapter 8.

2.3 SCOPE OF THIS DRAFT EIR

The scope of the Draft EIR was determined based on the District's NOP, comments received in response to the NOP, and comments received at the public scoping meeting conducted by the District on January 14, 2019 (see Appendix A). Pursuant to Sections 15126.2 and 15126.4 of the CEQA Guidelines, the Draft EIR should identify any potentially significant adverse impacts and recommend mitigation that would reduce or eliminate these impacts to levels of insignificance.

The information in Chapter 3, *Project Description*, establishes the basis for analyzing future, project-related environmental impacts. Pursuant to Sections 15126.2 and 15126.4 of the CEQA Guidelines, this Draft EIR identifies potentially significant adverse impacts and measures that would reduce or eliminate these impacts.

2.3.1 Impacts Considered Less Than Significant

During preparation of the Initial Study, the District determined that 16 environmental impact categories were not significantly affected by the proposed project. These categories are not discussed in detail in this Draft EIR. The findings of less than significant impacts are substantiated in Chapter 8, *Impacts Found Not to Be Significant*, in this Draft EIR.

- | | | |
|------------------------------------|---------------------------------|-------------------------------|
| • Aesthetics | • Hazards & Hazardous Materials | • Public Services |
| • Agriculture & Forestry Resources | • Hydrology & Water Quality | • Recreation |
| • Biological Resources | • Land Use & Planning | • Transportation |
| • Energy | • Mineral Resources | • Tribal Cultural Resources |
| • Geology & Soils | • Population & Housing | • Utilities & Service Systems |
| | | • Wildfire |

2. Introduction

2.3.2 Potentially Significant Adverse Impacts

The District determined that four environmental factors have potentially significant impacts. These topics are analyzed in Chapter 5.

- Air Quality
- Cultural Resources
- Greenhouse Gas Emissions
- Noise

2.3.3 Unavoidable Significant Adverse Impacts

This Draft EIR identifies one significant and unavoidable adverse impacts, as defined by CEQA, that would result from implementation of the proposed project. Unavoidable adverse impacts may be considered significant on a project-specific basis, cumulatively significant, and/or potentially significant. The City must prepare a “statement of overriding considerations” before it can approve the project, attesting that the decision-making body has balanced the benefits of the proposed project against its unavoidable significant environmental effects and has determined that the benefits outweigh the adverse effects, and therefore the adverse effects are considered acceptable. The impact that was found in the Draft EIR to be significant and unavoidable is in Section 5.2, *Cultural Resources*:

- The project would cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5.

2.4 FINAL EIR CERTIFICATION

This Draft EIR is being circulated for public review for 45 days. Interested agencies and members of the public are invited to provide written comments on the Draft EIR to the District address shown on the title page of this document. Upon completion of the 45-day review period, the District will review all written comments received and prepare written responses for each. A Final EIR (Final EIR) will incorporate the written comments, responses to the comments, and any changes to the Draft EIR that result from comments. The Final EIR will be reviewed by the RUSD Board of Education. All persons who comment on the Draft EIR will be notified of the availability of the Final EIR and the date of the public hearing before the RUSD Board of Education.

The Draft EIR is available to the general public for review at these locations:

- Riverside Unified School District, Facilities Planning Office, 3070 Washington Street, Riverside, CA 92504
- Longfellow Elementary School, 3610 Eucalyptus Avenue, Riverside, CA 92507
- Jesus Duran Eastside Library, 4033-C Chicago Avenue, Riverside, CA 92507

The Draft EIR can also be viewed on the District’s website at <http://bit.ly/LongfellowMeasureO>

2. Introduction

2.5 MITIGATION MONITORING AND REPORTING PROGRAM

CEQA Guidelines Section 15097 requires that public agencies adopt a mitigation monitoring or reporting program for any project for which mitigation measures are required. Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR or Mitigated Negative Declaration.

The Mitigation Monitoring and Reporting Program for the Longfellow Elementary School Expansion project will be prepared prior to consideration of the project by the District Board of Education.

3. Project Description

3.1 PROJECT LOCATION

The project site is in the central part of the City of Riverside, about 0.7 mile east of the State Route 91 (SR-91 [Riverside Freeway]), 1.0 mile west of SR-60 (Moreno Valley Freeway), and about 1.0 mile south of the SR-91/SR-60 interchange. The campus is surrounded by Sixth Street to the north, Eucalyptus Avenue to the west, Franklin Avenue to the east, and a dirt alley to the south. See Figures 3-1, *Regional Location*, and 3-2, *Local Vicinity*, and 3-3, *Aerial Photograph*. (All figures are at the end of the chapter.)

The project site consists of Henry W. Longfellow Elementary School at 3610 Eucalyptus Avenue; two parcels with single-family residences at 2210 Seventh Street (Assessor's Parcel Number [APN] 211-143-008) and 2226 Seventh Street (APN 211-143-007); Seventh Street cul-de-sac; and the alley.

3.2 STATEMENT OF OBJECTIVES

Objectives for the Longfellow Elementary School Expansion will aid decision makers in their review of the project, the project alternatives, and associated environmental impacts.

- **Objective 1:** Increase the safety and security of the staff and students through the campus modifications and improvements.
- **Objective 2:** Repair or replace aging, outdated classrooms and school buildings.
- **Objective 3:** Repair and seismically retrofit aging facilities, bring buildings up to code, and meet the Americans with Disabilities Act access requirements.
- **Objective 4:** Upgrade buildings to include modern classroom spaces that can accommodate the California Department of Education's and District's standard classroom space of 960 square feet.
- **Objective 5:** Upgrade campus for modern technology to meet the needs of the students and operational needs of the campus.
- **Objective 6:** Respect the history of the campus through the rehabilitation, retention, and reuse of older buildings, to the extent feasible, while modernizing the campus to address the current needs of students.
- **Objective 7:** Provide a new student drop-off/pick-up area to reduce neighborhood intrusion and consolidate unloading and loading procedures.

3. Project Description

- **Objective 8:** Limit the disruption of the educational experience of students during construction of the project by limiting the number and/or duration of phases.

3.3 PROJECT CHARACTERISTICS

“Project,” as defined by the CEQA Guidelines, means:

... the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1)...enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100–65700. (14 Cal. Code of Reg. § 15378[a])

3.3.1 Description of the Project

3.3.1.1 ACQUISITION

The project includes acquisition of two residential parcels: 2210 Seventh Street (APN 211-143-008) and 2226 Seventh Street (APN 211-143-007); the alley adjacent to the south side of the residential parcels; and the Seventh Street cul-de-sac north of the residential parcels. As part of the acquisition, the District would request that the City of Riverside vacate both road segments.

As a process of vacating the Seventh Street cul-de-sac, RUSD would submit a Vacation Request to the City of Riverside Planning Department. Because the cul-de-sac is an active street, approval by Planning Commission and City Council would be required. A utility re-location permit will also be requested from the City of Riverside Department of Public Works.

3.3.1.2 SITE CLEARANCE AND PREPARATION

This project phase includes building demolition; vegetation, building, and pavement clearance; and debris haul for the 26,600-sf¹ expansion site, including (see Figure 3-4, *Demolition Plan*):

- 12 portable buildings (12,520 sf; each portable building is 24 feet by 40 feet or 960 sf. Each). Temporarily relocated on campus for interim student housing, then removed following building modernizations and construction)
- Residential Parcel: 2210 Seventh Street property (7,400 sf property + 1,500 sf building)²
- Residential Parcel: 2226 Seventh Street property (7,850 sf property + 1,800 sf building)
- Dirt alley south of two residential parcels (3,050 sf)

¹ All square footages are estimates for analysis purposes only.

² House may be picked up from its foundation and moved elsewhere; however, for this analysis it is assumed to be demolished.

3. Project Description

- Asphalt cul-de-sac north of two residential parcels (8,280 sf)
 - Asphalt demolition, site clearance, and debris haul for hardcourt and playground area west of residential properties (3,500 sf)
 - Asphalt demolition, debris haul, and site clearance for area vacated by portable buildings (2,200 sf)

3.3.1.3 NEW CONSTRUCTION

Three new buildings would be constructed: a two-story classroom building (10 classrooms: 6 for grades 1-6, and 4 for kindergarten) (7,400 sf); a one-story classroom building (2 kindergarten) (3,000 sf); and a one-story Administration Building (3,000 sf) (see Figure 3-5, *Conceptual Site Plan*). All new buildings would be permanent, prefabricated modular buildings. The project also includes construction of a 40-space parking lot (22,100 sf), asphalt hardcourts and playground (40,200 sf), and concrete walkways and curbs (11,800 sf) (see Figure 3-6, *Paving Plan*).

3.3.1.4 MODERNIZATION

The project entails modernization of five classroom buildings (Buildings A, B, C, D, and E [19,200 sf]) and the multipurpose and cafeteria building (Building F [2,850 sf]), and conversion of the administration building (attached to Building F [1,800 sf]) to a parent center/classroom and day care. Classroom modernizations would be phased, with between 4 and 8 classrooms upgraded at a time until all work is complete. Work would include new paint, windows, ceilings, and flooring; lighting and electrical system upgrades; ADA access upgrades; new doors and hardware; and roof repairs. Modernizations would be done while school is in session and the campus is occupied, so students would be moved to available classrooms depending on the location of the scheduled work.

New turf and drought-tolerant plants would be installed following all construction (12,500 sf).

3.3.1.5 ACCESS, CIRCULATION, AND PARKING

A two-lane loop driveway would guide student drop-off/pick-up circulation on a one-way southbound path from Franklin Avenue, entering at Seventh Street and exiting about 190 feet to south. A 40-space parking lot would provide additional guest and staff parking. Similar to Lot 2 (northeast corner of Franklin Avenue and Seventh Street), the new lot would not have nighttime lighting. The two off-campus school parking lots would remain unchanged.

3.3.1.6 CONSTRUCTION

Project construction is anticipated to start in summer 2020 and take 12 months to complete. All new buildings would be permanent, prefabricated modular buildings. The project would require disturbance/earthwork on 2.8 acres of the 6.9-acre site (campus + expansion site). Future parking lot area would be used for construction staging.

3. Project Description

Summary: At project completion and building occupancy - total building demolition and/or removal = 15,820 sf; new building space = 13,400 sf [12 classrooms removed—12 classrooms constructed].³

- Site Clearance and Preparation
 - Asphalt demolition, site clearance and debris haul
- Rough grading and utility trenching followed by fine grading.
- Construction of 3 new buildings
- Construction of parking lot, asphalt hardcourts and playground, and concrete walkways and curbs
- Modernization of 5 classroom buildings (ongoing throughout construction, depending on classroom instruction schedule)
- Installation of landscape and removal of portable buildings

3.4 INTENDED USES OF THE EIR

This Draft EIR examines the environmental impacts and addresses various actions by the District and others to adopt and implement the proposed project. It is the intent of this EIR to evaluate the environmental impacts of the proposed project, thereby enabling the Riverside Unified School District, other responsible agencies, and interested parties to make informed decisions with respect to the requested entitlements. The analysis is intended to provide environmental review for the whole of the proposed project, including the planning of the project; clearance, excavation, and grading of the site; construction of buildings; installation of the proposed facilities; and ongoing operation.

3.4.1 Lead Agency

The RUSD is the lead agency under CEQA and has approval authority over the proposed project. The project-related EIR must be certified by the Board of Education, confirming its adequacy in complying with the requirements of CEQA. The Board would consider the information in the EIR in deciding to approve or deny the proposed project.

3.4.2 Anticipated Approvals

Anticipated approvals required for this project are as follows.

Lead Agency	Action
Riverside Unified School District Board of Education	Certification of the Final EIR
	Adoption of Mitigation Monitoring and Reporting Program
	Adoption of Findings of Fact and Statement of Overriding Considerations
	Approval of project

³ All acreages and square footages are approximate.

3. Project Description

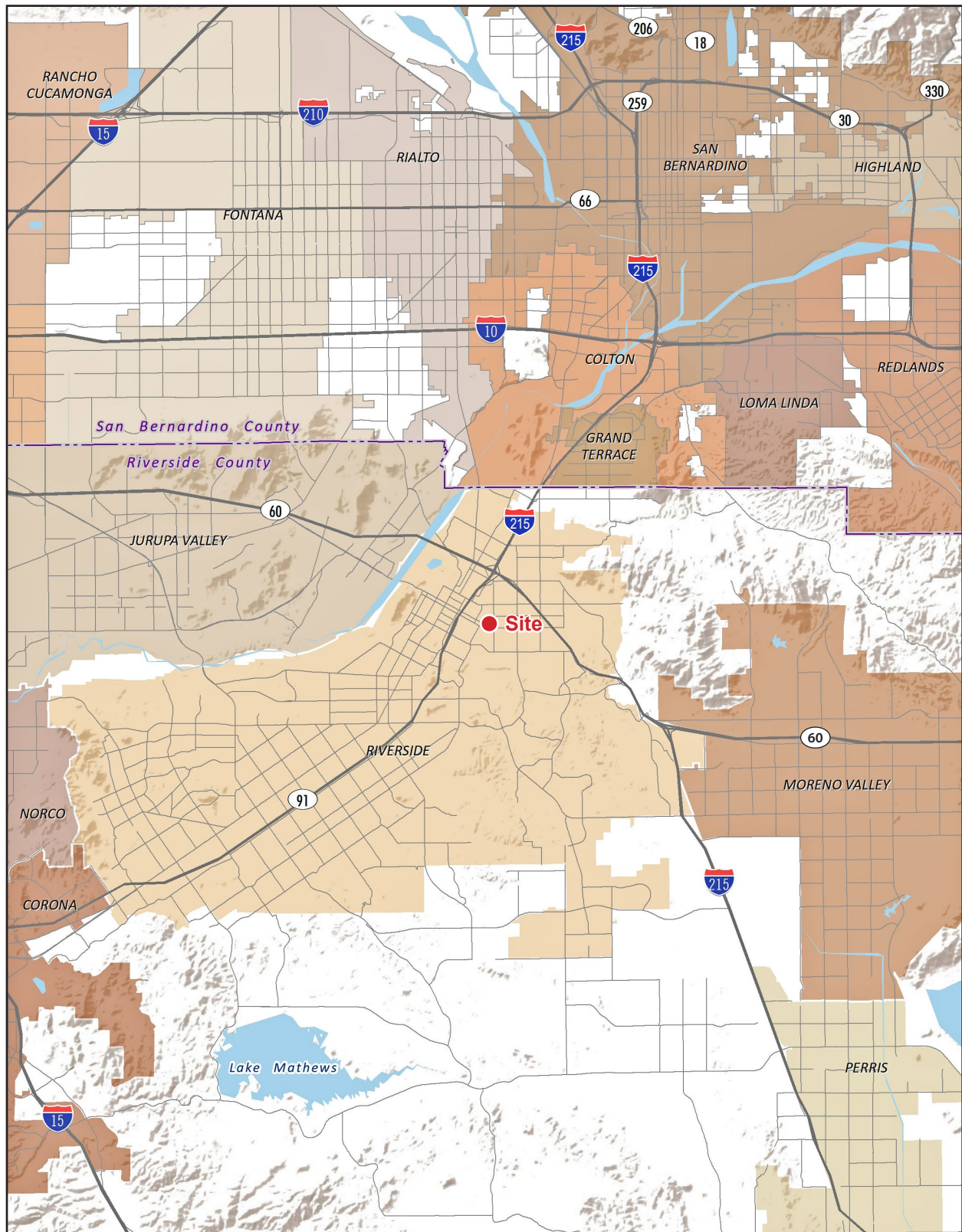
Reviewing Agencies*	Action
City of Riverside	Planning Commission and City Council: Approval of Vacation Request for the Seventh Street cul-de-sac and alley. Department of Public Works: Approval of drainage improvements and grading plans as they relate to drainage; approval of offsite improvements permit or "B-Permit" for curb, gutter, and other offsite work (utility re-location permit - sewer, water, stormwater lines, etc.).
City of Riverside Fire Department	Approval of plans for emergency access and emergency evacuation. DSA approval of the fire/life safety portion of a project requires local fire authority (LFA) review of: elevator/stair access for emergency rescue and patient transport; access roads, fire lane markings, pavers, and gate entrances; fire hydrant location and distribution; and fire flow (location of post indicator valve, fire department connection, and detector check valve assembly).
City of Riverside Police Department	Site plan review for fire, life, safety hazards, access, and visibility
South Coast Air Quality Management District (SCAQMD)	Review and issue necessary air quality permits to construct: <ul style="list-style-type: none"> • SCAQMD Rule 201-Permit to Construct and SCAQMD Rule 203-Permit to Operate: A permit is required to construct and operate any stationary equipment that generates new emissions (e.g., boiler or emergency generator). • SCAQMD Rule 403-Large Operation Notification Form: The applicant/applicant's construction contractor is required to file a Large Operation Notification Form with SCAQMD for grading activities and prepare and implement a dust control plan. • SCAQMD Rule 1403-Asbestos Emissions from Demolition/Renovation Activities: Requires that SCAQMD be notified that demolition of buildings containing asbestos would occur within 10 working days prior to activities. • SCAQMD Rule 1166-Volatile Organic Compound Emissions from Decontamination of Soil: site-specific soil mitigation plan and site monitoring for cleanup. • SCAQMD Rule 1466-Control of Particulate Emissions from Soils with Toxic Air Contaminants: movement of soil.
California Department of General Services, Division of State Architect (DSA)	Plan review and construction oversight, including structural safety, fire and life safety, and access compliance.
California Department of Education, School Facilities Planning Division (CDE)	If RUSD is requesting modernization funds from the State Allocation Board (SAB) they must have the plans reviewed and approved by the CDE (Education Code Section 17070.50) prior to submitting a funding request. Approval of design for educational appropriateness.
California Department of Transportation (Caltrans)	Transportation permit for oversized vehicles on State highways.
State Water Resources Control Board (SWRCB)	Review of Notice of Intent (NOI) to obtain permit coverage; issuance of general permit for discharges of stormwater associated with construction activity; review of Storm Water Pollution Prevention Plan (SWPPP).
Santa Ana Regional Water Quality Control Board (SARWQCB)	Issue National Pollution Discharge Elimination System (NPDES) permit; Clean Water Act Section 401 Water Quality Certification
California Department of Toxic Substances Control (DTSC)	Approval of Phase I Environmental Site Assessment; issuance of a "No Further Action" determination

* These agencies would have no role in approval process for the project; however, review or coordination would be required.

3. Project Description

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Figure 3-1 - Regional Location
3. Project Description



Note: Unincorporated county areas are shown in white.

0 3
Scale (Miles)



Source: ESRI, 2018

PlaceWorks

3. Project Description

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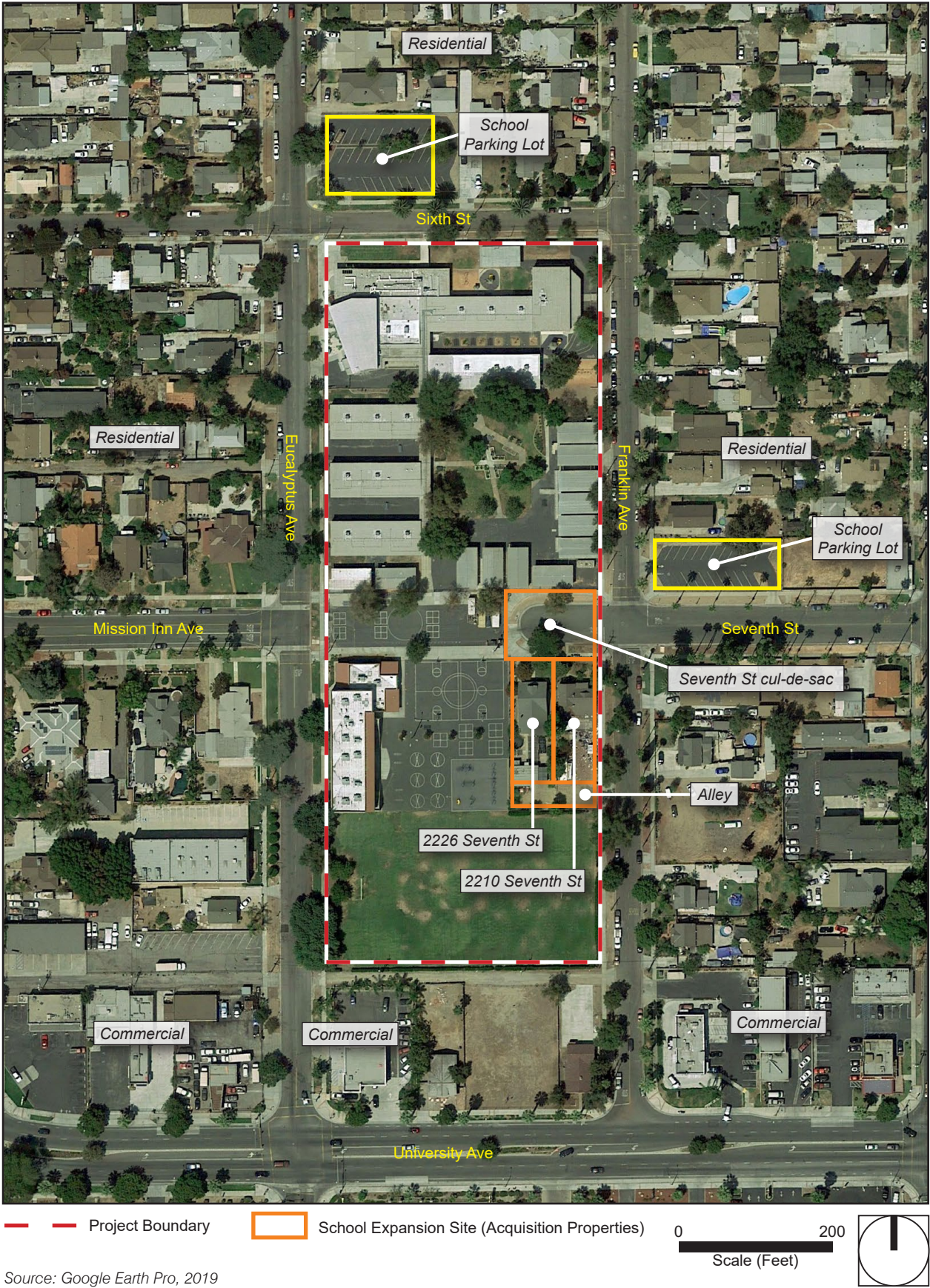


PlaceWorks

3. Project Description

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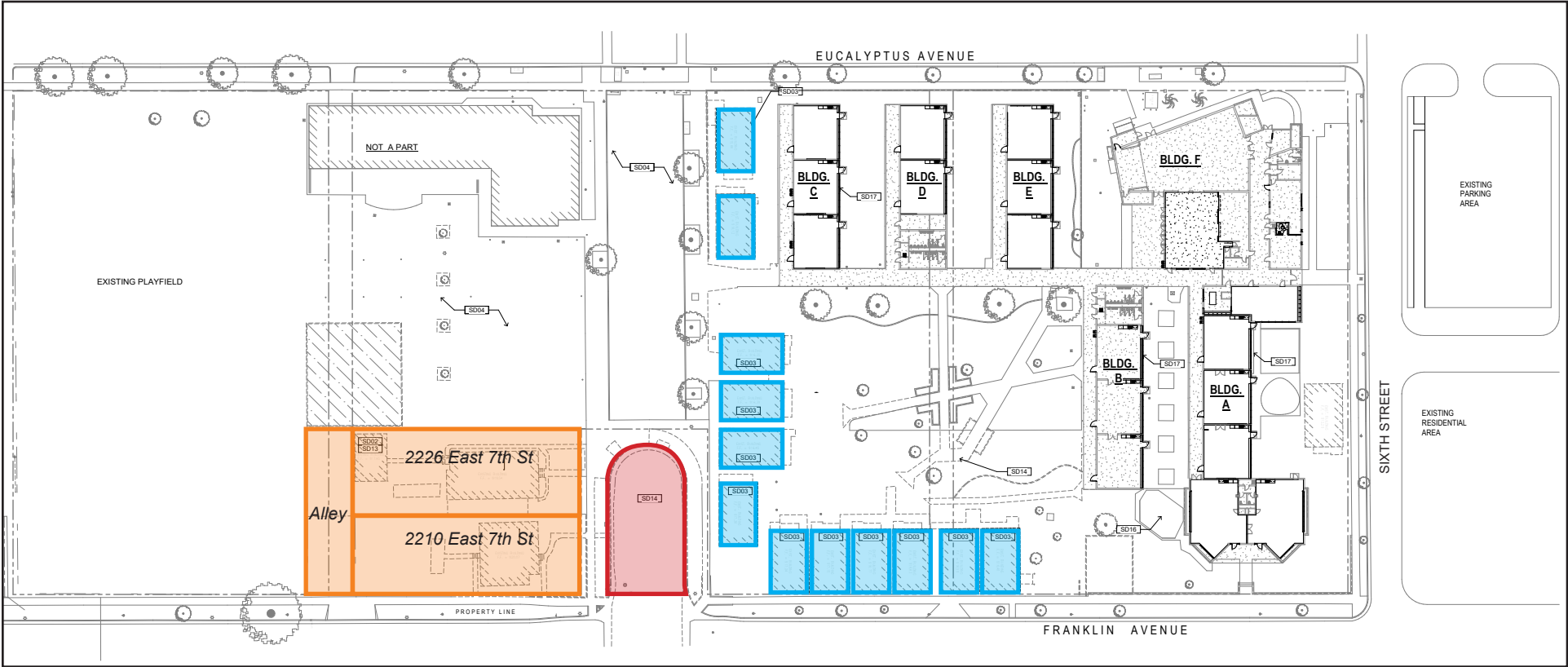
Figure 3-3 - Aerial Photograph
3. Project Description






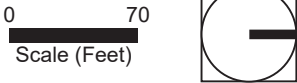
3. Project Description

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Figure 3-4 - Demolition Plan
3. Project Description



-  Portable buildings to be removed with the option to retain or relocate 2 buildings on campus.
-  Residential properties and alley to be acquired. The structures on 2210 7th Street would be demolished. The house on 2226 7th Street may be offered to a person or organization for relocation or demolished.
-  Seventh St cul-de-sac to be vacated and demolished.

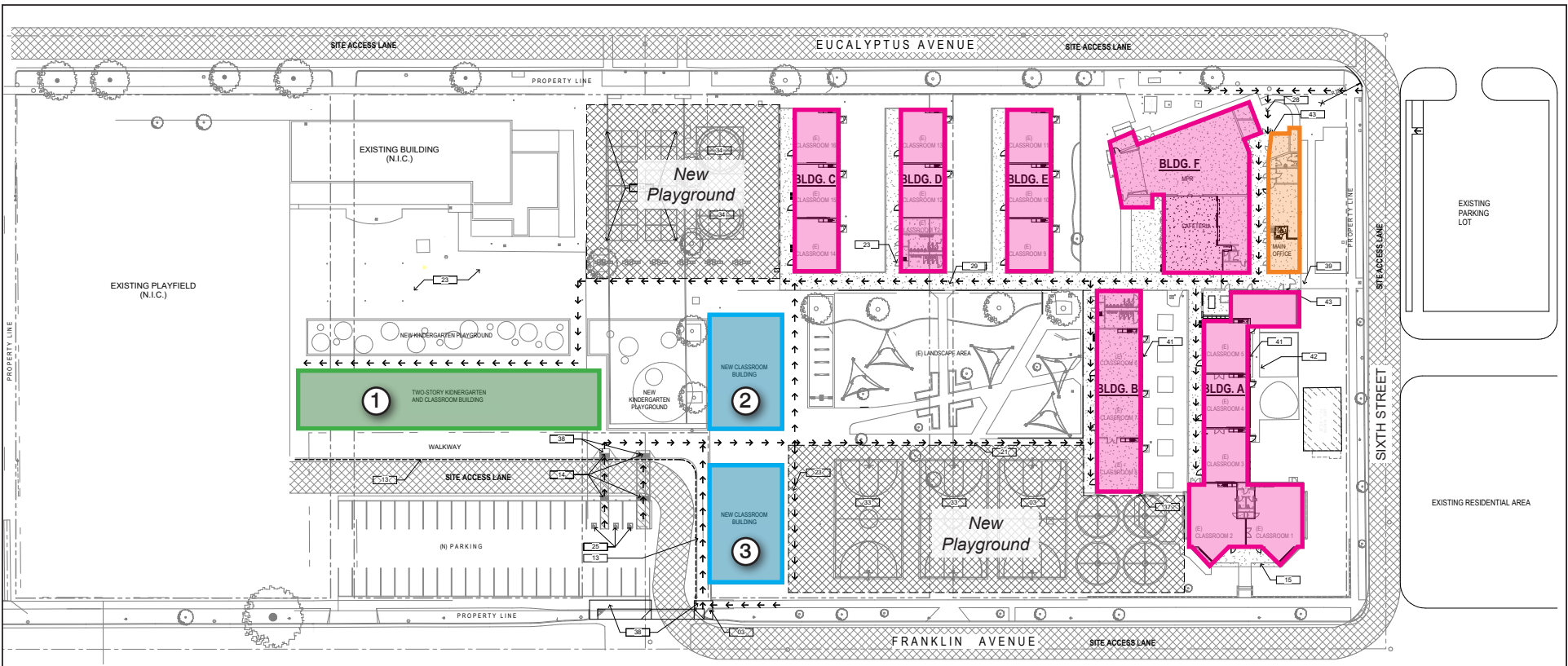


Source: DLR Group, 2018

3. Project Description

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Figure 3-5 - Conceptual Site Plan
3. Project Description

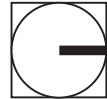


- ① New 2-Story Classroom Building #1
- ② New 1-Story Classroom Building #2
- ③ New 1-Story Classroom Building #3
- ③ New 1-Story Administration Building #3

Administration Building to be Converted to Parent Center/Classroom and Day Care

Buildings to be Renovated

0 70
Scale (Feet)



Source: DLR Group, 2018

3. Project Description

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3. Project Description

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4. Environmental Setting

4.1 INTRODUCTION

This section provides a “description of the physical environmental conditions in the vicinity of the project, as they existed at the time the notice of preparation was published, ... from both a local and a regional perspective,” pursuant to provisions of the California Environmental Quality Act (CEQA) and the CEQA Guidelines (§ 15125[a]). The environmental setting provides the baseline physical conditions from which the lead agency will determine the significance of project-related environmental impacts.

4.2 REGIONAL ENVIRONMENTAL SETTING

The Riverside Unified School District (District) encompasses about 92 square miles in western Riverside County—i.e., most of the City of Riverside, a small portion of the City of Jurupa Valley, and unincorporated areas of Riverside County (communities of Highgrove and Woodcrest). The District has 30 elementary schools, 7 middle schools, 6 traditional comprehensive high schools, 1 charter school of the arts (middle and high school), 1 adult education center, 1 alternative school of choice, and 2 continuation high schools (CDE 2019). Districtwide enrollment was 42,153 for the 2018-19 school year.

The project site is in the central part of the City of Riverside, about 0.7 mile east of the State Route 91 (SR-91 [Riverside Freeway]); 1.0 mile west of SR-60 (Moreno Valley Freeway); and about 1.0 mile south of the SR-91/SR-60 interchange (see Figure 3-1). The 6.9-acre project site is surrounded by Sixth Street to the north, Eucalyptus Avenue to the west, Franklin Avenue to the east, and a dirt alley to the south.

4.3 LOCAL ENVIRONMENTAL SETTING

4.3.1 Project Location

The project site consists of Henry W. Longfellow Elementary School; two parcels with occupied single-family residences; the Seventh Street cul-de-sac; and an alley (see Figure 3-2 and 3-3).

- **Longfellow Elementary School** is a 5.56-acre campus at 3610 Eucalyptus Avenue. Most of the school district property is in two blocks surrounded by Sixth Street to the north, Eucalyptus Avenue to the west, Franklin Avenue to the east, and residential and commercial property to the south.
- **Expansion Site.** The total expansion site is approximately 0.61 acre—0.36 acres for the two residential parcels, 0.06 acre for the alley, and 0.19 acre for the cul-de-sac.
 - **Parcel No. 1** (Assessor’s Parcel Number [APN] 211-143-008) is at 2210 Seventh Street on the east side of campus, adjacent to Franklin Avenue.

4. Environmental Setting

- **Parcel No. 2** (APN 211-143-007) is at 2226 Seventh Street adjacent to the eastern campus boundary.
- **Seventh Street cul-de-sac** is next to the two residences and the eastern campus boundary. It is currently used for parking during student drop-off/pick-up.
- **Alley** abutting the southern end of the two residential parcels is unpaved and originally provided vehicle access to the homes.

4.3.2 Surrounding Land Uses

The school is surrounded by residential and commercial land uses:

- North: Sixth Street and residential uses
- South: residential and commercial uses along University Avenue
- East: Franklin Avenue and residential
- West: Eucalyptus Avenue and residential and commercial

4.4 EXISTING CONDITIONS

4.4.1 Expansion Site

4.4.1.1 PROPERTY HISTORY AND CONDITIONS

2210 Seventh Street

2210 Seventh Street is a single-story residential dwelling comprised of concrete and stucco. This parcel is located on the southwest corner of Seventh Street and Franklin Avenue. The 1,300-square-foot single-family one-story house was built in 1900. The parcel has an iron post and concrete block fence enclosing the front yard and a tall wooden fence along the east side on Franklin Avenue. At one point the architecture style probably represented Folk Victorian or early Craftsman style architecture. The property can be broadly associated with the context of community planning and development of Riverside. One of the first occupants of 2110 Seventh Street was Eleazar Bentley Hayes. He had a distinguished career and appears important to local history in Michigan, but his time in Riverside was brief and not particularly significant. No other occupants were of local or historical importance.

2226 Seventh Street

2226 Seventh Street is a single-story residential dwelling comprised of wood siding. This parcel shares a fence line with Longfellow Elementary School on the west side. The 1,100-square-foot single-family one-story house was built in 1910. The house has elements of the Craftsman style. It has a rectangular plan and rests on a concrete block foundation. The side-gable roof has a moderate pitch and is punctuated by a gabled window dormer on the primary (north) façade. Both the main and gable roofs have overhanging eaves with narrow exposed rafter tails. The roof extends over the entrance to form a full-front porch supported by four columns. The interior has not been significantly altered since its initial construction and shares the floorplan of a house featured in “Ye Planry” Catalogue of Homes from 1908. The garage at the rear of the property was constructed

4. Environmental Setting

in 1968. It has a flat roof with narrow wood clapboards. There is a small tilt-up garage door on the south façade and a single entrance door on the north façade (ASM, 2018). A detailed discussion is in Appendix C of this EIR.

4.4.2 Longfellow Elementary School

4.4.2.1 CAMPUS HISTORY

The school was originally constructed in 1890 on the north side of Seventh Street, between Franklin Street and Eucalyptus Avenue. In 1917 the school district purchased the property on the south side of Seventh Street and expanded the campus. In 1946 the auditorium on the campus burned down; in its place, a new auditorium along with eight classrooms and a cafeteria were built in 1948. In 1949 an additional six classrooms and two kindergarten classrooms were constructed on the campus. Modernization and renovations of the school began in 1996. The two-story classroom building and library building were constructed in 2005. The last major renovation was in 2007 and included landscaping and paving, and in 2016 with new buildings (RUSD 2011).

4.4.2.2 CAMPUS FACILITIES

All but one of the school buildings are in the north half of the campus. The south half of the campus consists of a turf playfield, asphalt playground, and a two-story classroom building. The north half has 13 portables, 6 one-story buildings and two asphalt playgrounds (see Figure 4-1, *Index Map, Site Photographs*). Much of the campus is paved, except for the turf play field, a landscaped court yard, and a few mature trees located predominately in the northern portion (see Figure 4-1a and 4-1b, *Site Photographs*). Table 4.1 shows the use and square footage for the campus buildings.

Table 4.1 Longfellow ES Campus Facilities

Building	Use	Square Footage
A	Administration / Multi-purpose	7,689
B	Classrooms	4,021
C	Classrooms	3,197
D	Classrooms	3,254
E	Classrooms	3,197
F	Classrooms	9,165
	Classroom / Library	1,763
1A	Portable	960
30	Portable	960
31	Portable	960
32	Portable	960
33	Portable	960
34	Portable	960
35	Portable	960
36	Portable	960
37	Portable	960

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Table 4.1 Longfellow ES Campus Facilities

Building	Use	Square Footage
38	Portable	960
39	Portable	960
40	Portable	960
41	Portable	960
Total Square Feet		60,632.87

Source: ATI Architects and Engineers, 2017.
See Figure 3-4 for building labels.

School Operations. Longfellow ES has enrollment of 741 students in grades Pre-Kindergarten (Pre-K) to 6th grade for the 2018-19 school year (CDE 2019). The school is one of seven elementary schools in the Riverside Unified School District that offers a dual language immersion program in English and Spanish.

Longfellow ES operates on a two-semester academic calendar from August to May; school hours are from 8:20 AM to 2:40 PM.

School-Related Events. The school has after-school programs for the students, such as special-interest clubs and extracurricular activities that begin and end later than 3:00 PM. There are also occasional nighttime and weekend events during the school year. Some of these events are campus wide, such as school plays and open houses, while others are grade specific, such as commencement.

Community Use. In compliance with the Civic Center Act, the campus is available for community use at selected times when not in use by the school (Ed. Code §§ 38130–38139).

4.4.2.3 CIRCULATION AND PARKING

There are two designated passenger/student loading areas. Eucalyptus Avenue has a designated drop-off/pick-up zone extending for almost 210 feet north of Mission Inn Avenue. This area has white curb marking and a posted sign, “Loading Zone 7:50 to 8:20 AM Monday to Friday; 2:30 to 3:00 PM Monday and Tuesday, and Thursday and Friday and 1:00 PM to 1:45 PM Wednesday.”

Franklin Avenue has a designated drop-off/pick-up zone extending about 180 feet south of Sixth Street. This area has white curb marking and a posted sign, “Loading Zone 7:50 AM to 8:20 AM Monday to Friday.” Typically, cars park on both sides of Eucalyptus Avenue and Franklin Avenue and students are then escorted to the school entrance at Eucalyptus Avenue / Sixth Street.

There are two off-campus parking lots (1.34 acres)—one at the northeast corner of Eucalyptus Avenue and Sixth Street (Lot 1), and one at the northeast corner of Franklin Avenue and Seventh Street (Lot 2). Lot 1 has one light pole with two lights in the center of the lot. Lot 2 does not have nighttime lights.

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4.4.3 General Plan and Zoning

The City of Riverside General Plan land use designation for the school campus and the expansion site is Public Facilities/Institutions (PF) (Riverside 2018, p. 54). The zoning designation for both the school and the expansion site (2 residential parcels) is PF (Public Facilities). The Public Facilities zone “is established to create and preserve areas for official and public uses of property and related activities, including civic center, public schools, public buildings, parks and recreation facilities, waterworks and drainage facilities, and similar areas...” (Riverside 2019).

Eastside Neighborhood. The City of Riverside is divided in to 25 neighborhoods. Eastside Neighborhood is one of Riverside's oldest and largest residential neighborhoods and has been a part of the city since its founding in 1870. It covers an area in the eastern portion of the City of Riverside, between the center of Downtown to the west, the employment center of Hunter Industrial Park to the north, the University neighborhood/UC Riverside to the east, and the Tequesquite Arroyo and Victoria Club Golf Course to the south (Riverside 2015).

Seventh Street East Historic District (1880 to 1945). The south half of the school and the expansion site are within the City of Riverside Seventh Street Historic District. This historic district is designated on Mission Inn Avenue/Seventh Street between Kansas Avenue and the Santa Fe Railroad tracks. The Seventh Street East Historic District is primarily residential, but also includes two historic depots, a citrus packinghouse, and the site of City founder John North’s original home (now North Park). Residential development east of downtown was made possible in part by the Gage Canal, which brought water to the area. The district includes excellent examples of Victorian-era architectural styles dating from just after the subdivisions, as well as later Craftsman, Mission Revival, Spanish Colonial Revival, and Classical Revival styles. The Seventh Street East Historic District embraces many facets of downtown Riverside’s social history and continues to function as a vital hub of community activity (Riverside, “Historic Districts”).

March Air Reserve Base / Inland Port Airport Land Use Compatibility Plan. The site is about 7.2 miles northwest of the March Air Reserve Base. It is within Land Use Compatibility Plan Zone E, which has no restrictions except for disclosure. The only prohibited uses are those that would pose a hazard to flights (RCALUC 2014).

4.5 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

Cumulative impacts are defined as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (14 CCR [CA Code of Regulations] § 15355). Cumulative impacts are the change caused by the incremental impact of the project evaluated in the EIR together with the incremental impacts from closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

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Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed when the project's incremental effect is cumulatively considerable.¹ It further states that this discussion shall reflect the level and severity of the impact and the likelihood of occurrence, but not in as great a level of detail as for the project.

The information used in an analysis of cumulative impacts comes from one of two sources (per 14 CCR § 15130 [b][1]):

- A. A list of past, present, and probable future projects producing related cumulative impacts, including, if necessary, those projects outside the control of the agency.
- B. A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

The cumulative impact analyses in this EIR use a combination of Sources A and B. Depending on the environmental category, the cumulative impact analysis in each topical section of this EIR uses either source. Some impacts are site specific, such as aesthetics and biological resources, and others may have impacts outside the district boundaries, such as regional air quality.

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¹ 14 CCR § 15065 (a)(3) "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.

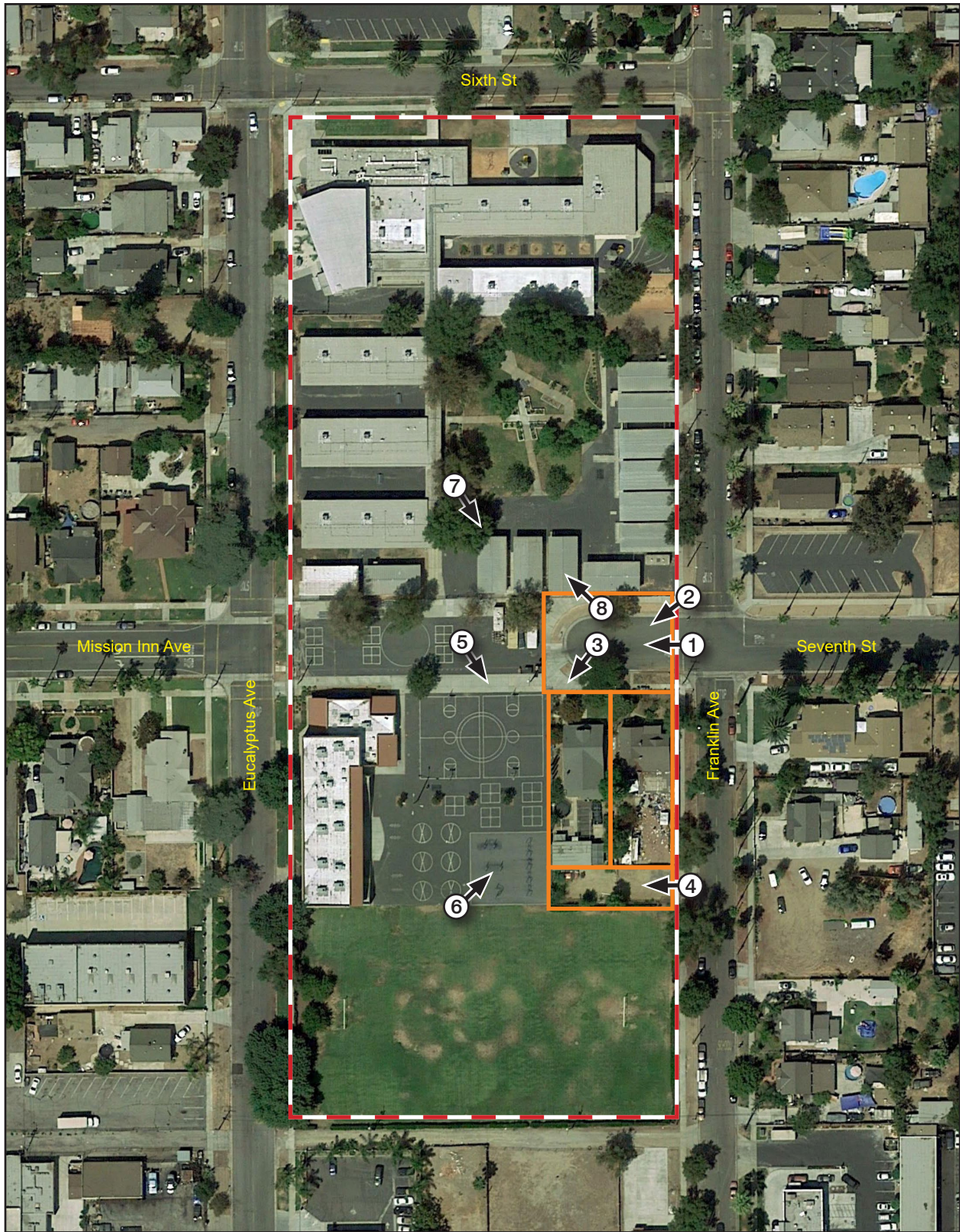
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Figure 4-1 - Index Map, Site Photographs
4. Environmental Setting



— Project Boundary

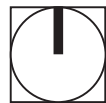
— School Expansion Site (Acquisition Properties)

0 125

1 Photograph Location and Direction (8)

Scale (Feet)

Source: Google Earth Pro, 2019



PlaceWorks

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Figure 4-1a - Site Photographs
4. Environmental Setting



① View of Mission Inn Avenue cul-de-sac looking west from Franklin Avenue.



② View of the house at 2210 Seventh Street looking south.



③ View of the house at 2226 Seventh Street looking south.



④ View of dirt alley next to south side of residential parcels at 2210 and 2226 Seventh Street looking west.

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Figure 4-1b - Site Photographs
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⑤ View looking southeast toward handcourts; the 2226 Seventh Street house on the expansion site is on the left.



⑥ View looking northeast toward kindergarten playground; the 2226 Seventh Street house on the expansion site is in the center background.



⑦ View looking south toward portable classrooms buildings in the center of the campus.



⑧ View looking northwest from the Mission Inn Avenue cul-de-sac toward portable classrooms buildings.

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5. Environmental Analysis

Chapter 5 examines the environmental setting and impacts associated with the proposed project. This chapter has four sections, Air Quality, Cultural Resources, Greenhouse Gas Emissions, and Noise. This scope was determined through public and agency comments received during the NOP comment period from December 21, 2018 to January 21, 2019 (see Appendix A) and a technical study (see Appendix C).

Certain environmental topics were determined to not be significantly affected by the project; these topics are discussed in Chapter 8 of this EIR.

Organization of Environmental Analysis

To assist the reader in reviewing the environmental analysis, this Chapter 5 is organized as follows:

- Environmental Setting
- Thresholds of Significance
- Plans, Programs, and Policies
- Environmental Impacts
- Cumulative Impacts
- Level of Significance Before Mitigation
- Mitigation Measures
- Level of Significance After Mitigation
- References

In addition, Chapter 1. *Executive Summary* includes a table summarizing all the impacts along with any required mitigation.

Impact Terminology

For each impact identified in this Draft EIR, a statement of the level of significance of the impact is provided. Classification of the impacts is based on the following definitions consistent with CEQA and the CEQA Guidelines:

- A designation of **no impact** is given when no changes in the environment would occur.
- A **less than significant impact** would cause no substantial adverse change in the environment.

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- A **less than significant impact with mitigation incorporated** avoids substantial adverse impacts on the environment through mitigation measures.
- A **significant unavoidable impact** would cause a substantial adverse effect on the environment, and no feasible mitigation measures would be available to reduce the impact to a less than significant level.

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5.1 AIR QUALITY

This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential for the Longfellow Elementary School Expansion to impact air quality in a local and regional context. The analysis focuses on air pollution from regional emissions and localized pollutant concentrations.

In this section, “emissions” refers to the actual quantity of pollutant, measured in pounds per day (lbs/day), and “concentrations” refers to the amount of pollutant material per volumetric unit of air. Concentrations are measured in parts per million (ppm), parts per billion (ppb), or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). Cumulative impacts related to air quality are based on the regional boundaries of the South Coast Air Basin (SoCAB). Criteria air pollutant emissions modeling for the proposed project is included in Appendix B of this Draft EIR.

5.1.1 Environmental Setting

5.1.1.1 REGULATORY FRAMEWORK

Ambient air quality standards (AAQS) have been adopted at the state and federal levels for criteria air pollutants. In addition, both the state and federal government regulate the release of toxic air contaminants (TACs). The proposed project is in the SoCAB and is subject to the rules and regulations imposed by the South Coast Air Quality Management District (SCAQMD) as well as the California AAQS adopted by California Air Resources Board (CARB) and National AAQS adopted by the US Environmental Protection Agency (EPA). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized in this section.

Federal and State

Ambient Air Quality Standards

The Clean Air Act was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The Clean Air Act allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act, signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS.

The National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors” most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate

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occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 5.1-1. These pollutants are ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 5.1-1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard ¹	Federal Primary Standard ²	Major Pollutant Sources
Ozone (O ₃) ³	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 µg/m ³	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m ³	150 µg/m ³	
Respirable Fine Particulate Matter (PM _{2.5}) ⁴	Annual Arithmetic Mean	12 µg/m ³	12 µg/m ³	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m ³	
Lead (Pb)	30-Day Average	1.5 µg/m ³	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m ³	
	Rolling 3-Month Average	*	0.15 µg/m ³	
Sulfates (SO ₄) ⁵	24 hours	25 µg/m ³	*	Industrial processes.

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Table 5.1-1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard ¹	Federal Primary Standard ²	Major Pollutant Sources
Visibility Reducing Particles	8 hours	ExCo = 0.23/km visibility of 10≥ miles	*	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	*	Hydrogen sulfide (H ₂ S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hour	0.01 ppm	*	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2016.

Notes: ppm: parts per million; µg/m³: micrograms per cubic meter

* Standard has not been established for this pollutant/duration by this entity.

¹ California standards for O₃, CO (except 8-hour Lake Tahoe), SO₂ (1 and 24 hour), NO₂, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

² National standards (other than O₃, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

³ On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

⁴ On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

⁵ On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- **Assembly Bill (AB) 1493, Pavley Fuel Efficiency Standards.** Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025.

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- **Senate Bill (SB) 1078 and SB 107, Renewables Portfolio Standards.** A major component of California’s Renewable Energy Program is the renewables portfolio standard (RPS) established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010.
- **California Code of Regulations (CCR), Title 20, Appliance Energy Efficiency Standards.** The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances.
- **24 CCR, Part 6, Building and Energy Efficiency Standards.** Energy conservation standards for new residential and nonresidential buildings adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977.
- **24 CCR, Part 11, Green Building Standards Code.** Establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.¹

Tanner Air Toxics Act and Air Toxics Hot Information and Assessment Act

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California legislature enacted a program to identify the health effects of TACs and reduce exposure to them. The California Health and Safety Code defines a TAC as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health” (17 CCR § 93000). A substance that is listed as a hazardous air pollutant under Section 112(b) of the federal Clean Air Act (42 US Code § 7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency, acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through AB 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics “Hot Spot” Information and Assessment Act of 1987). The Tanner Air Toxics Act set up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an “airborne toxics control measure” for sources that emit that TAC. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate “toxics best available control technology” to minimize emissions. To date, CARB has established formal control measures for 11 TACs that are identified as having no safe threshold.

Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High-priority facilities are required to perform a health

¹ The green building standards became mandatory in the 2010 edition of the code.

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risk assessment, and if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings.

CARB has promulgated the following specific rules to limit TAC emissions:

- **13 CCR Chapter 10 § 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.** Generally restricts on-road diesel-powered commercial motor vehicles with a gross vehicle weight rating of greater than 10,000 pounds from idling more than five minutes.
- **13 CCR Chapter 10 § 2480, Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools.** Generally restricts a school bus or transit bus from idling for more than five minutes when within 100 feet of a school.
- **13 CCR § 2477 and Article 8, Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate.** Regulations established to control emissions associated with diesel-powered TRUs.

Air Pollutants of Concern

Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead (Pb) are primary air pollutants. Of these, CO, SO₂, NO₂, PM₁₀, and PM_{2.5} are “criteria air pollutants,” which means that AAQS have been established for them. VOC and NO_x are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O₃) and nitrogen dioxide (NO₂) are the principal secondary pollutants.

A description of each of the primary and secondary criteria air pollutants and its known health effects is presented below.

- **Carbon Monoxide** is a colorless, odorless gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (SCAQMD 2005; USEPA 2018). The SoCAB is designated under the California and National AAQS as being in attainment of CO criteria levels (CARB 2017).
- **Volatile Organic Compounds** are composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of VOCs. Other sources include evaporative emissions from paints and solvents, asphalt paving, and household consumer products such as

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aerosols (SCAQMD 2005). There are no AAQS for VOCs. However, because they contribute to the formation of O_3 , SCAQMD has established a significance threshold.

- **Nitrogen Oxides** are a by-product of fuel combustion and contribute to the formation of ground-level O_3 , PM_{10} , and $PM_{2.5}$. The two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO_x produced by combustion is NO, but NO reacts quickly with oxygen to form NO_2 , creating the mixture of NO and NO_2 commonly called NO_x . NO_2 is an acute irritant and more injurious than NO in equal concentrations. At atmospheric concentrations, however, NO_2 is only potentially irritating. NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 exposure concentrations near roadways are of particular concern for susceptible individuals, including asthmatics, children, and the elderly. Current scientific evidence links short-term NO_2 exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects, including airway inflammation in healthy people and increased respiratory symptoms in people with asthma. Also, studies show a connection between elevated short-term NO_2 concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma (SCAQMD 2005; USEPA 2018). The SoCAB is designated an attainment area for NO_2 under the National (CARB 2017). On February 21, 2019, CARB's Board approved the separation of the area that runs along the State Route 60 corridor through portions of Riverside, San Bernardino, and Los Angeles Counties from the remainder of the SoCAB for state nonattainment designation purposes. The Board designated this corridor as nonattainment. The remainder of the SoCAB remains in attainment for NO_2 (CARB 2019).
- **Sulfur Dioxide** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and chemical processes at plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2 . When sulfur dioxide forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_x). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO_2 , ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly adverse for asthmatics at elevated ventilation rates (e.g., while exercising or playing) at lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. Studies also show a connection between short-term exposure and increased visits to emergency facilities and hospital admissions for respiratory illnesses, particularly in at-risk populations such as children, the elderly, and asthmatics (SCAQMD 2005; USEPA 2018). The SoCAB is designated attainment under the California and National AAQS (CARB 2017).
- **Suspended Particulate Matter** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10} , include particulate matter with an aerodynamic diameter of 10 microns or less (i.e., ≤ 10 millionths of a meter or 0.0004 inch). Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns or less (i.e., ≤ 2.5 millionths of a meter or 0.0001 inch). Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. Both

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PM₁₀ and PM_{2.5} may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. The EPA's scientific review concluded that PM_{2.5}, which penetrates deeply into the lungs, is more likely than PM₁₀ to contribute to health effects and at far lower concentrations. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing) (SCAQMD 2005). There has been emerging evidence that ultrafine particulates, which are even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤0.1 millionths of a meter or <0.000004 inch), have human health implications, because their toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (SCAQMD 2013). However, the EPA or CARB has yet to adopt AAQS to regulate these particulates. Diesel particulate matter is classified by CARB as a carcinogen (CARB 1998). Particulate matter can also cause environmental effects such as visibility impairment,² environmental damage,³ and aesthetic damage⁴ (SCAQMD 2005; USEPA 2018). The SoCAB is a nonattainment area for PM_{2.5} under California and National AAQS and a nonattainment area for PM₁₀ under the California AAQS (CARB 2017).⁵

- **Ozone**, or O₃, is a key ingredient of “smog” and is a gas that is formed when VOCs and NO_x, both by-products of internal combustion engine exhaust, undergo photochemical reactions in sunlight. O₃ is a secondary criteria air pollutant. O₃ concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for its formation. O₃ poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O₃ can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O₃ also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O₃ also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O₃ harms sensitive vegetation during the growing season (SCAQMD 2005; USEPA 2018). The SoCAB is designated extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2017).
- **Lead** is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current

² PM_{2.5} is the main cause of reduced visibility (haze) in parts of the United States.

³ Particulate matter can be carried over long distances by wind and then settle on ground or water, making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.

⁴ Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

⁵ CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM₁₀ to attainment for PM₁₀ under the National AAQS on March 25, 2010, because the SoCAB did not violate federal 24-hour PM₁₀ standards from 2004 to 2007. The EPA approved the State of California's request to redesignate the South Coast PM₁₀ nonattainment area to attainment of the PM₁₀ National AAQS, effective on July 26, 2013.

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populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (SCAQMD 2005; USEPA 2018). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. However, in 2008 the EPA and CARB adopted more strict lead standards, and special monitoring sites immediately downwind of lead sources recorded very localized violations of the new state and federal standards.⁶ As a result of these violations, the Los Angeles County portion of the SoCAB is designated as nonattainment under the National AAQS for lead (SCAQMD 2012; CARB 2017). There are no lead-emitting sources associated with this project, and therefore, lead is not a pollutant of concern for the proposed project.

Toxic Air Contaminants

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. TAC impacts are evaluated by calculating the health risks associated with a given exposure. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, and the most relevant to the project is particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified diesel particulate matter as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs.

Air Quality Management Planning

SCAQMD is the agency responsible for improving air quality in the SoCAB and ensuring that the National and California AAQS are attained and maintained. SCAQMD is responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG). Since 1979, a number of AQMPs have been prepared.

⁶ Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 showed that the Trojan Battery Company and Exide Technologies exceed the federal standards (SCAQMD 2012).

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2016 AQMP

On March 3, 2017, SCAQMD adopted the 2016 AQMP, which serves as an update to the 2012 AQMP. The 2016 AQMP addresses strategies and measures to attain the following National AAQS:

- 2008 National 8-hour ozone standard by 2031
- 2012 National annual PM_{2.5} standard by 2025⁷
- 2006 National 24-hour PM_{2.5} standard by 2019
- 1997 National 8-hour ozone standard by 2023
- 1979 National 1-hour ozone standard by year 2022

It is projected that total NO_x emissions in the SoCAB would need to be reduced to 150 tons per day (tpd) by year 2023 and to 100 tpd in year 2031 to meet the 1997 and 2008 federal 8-hour ozone standards. The strategy to meet the 1997 federal 8-hour ozone standard would also lead to attaining the 1979 federal 1-hour ozone standard by year 2022 (SCAQMD 2017), which requires reducing NO_x emissions in the SoCAB to 250 tpd. This is approximately 45 percent more reductions than existing regulations for the 2023 ozone standard and 55 percent more reductions than existing regulations to meet the 2031 ozone standard.

Reducing NO_x emissions would also reduce PM_{2.5} concentrations in the SoCAB. However, because the goal is to meet the 2012 federal annual PM_{2.5} standard no later than year 2025, SCAQMD is seeking to reclassify the SoCAB from “moderate” to “serious” nonattainment under this federal standard. A “moderate” nonattainment would require meeting the 2012 federal standard by no later than 2021.

Overall, the 2016 AQMP is composed of stationary and mobile-source emission reductions from regulatory control measures and incentive-based programs; co-benefits from climate programs and mobile-source strategies; and reductions from federal sources such as aircrafts, locomotives, and ocean-going vessels. Strategies outlined in the 2016 AQMP would be implemented in collaboration between CARB and the EPA (SCAQMD 2017).

Lead Implementation Plan

In 2008, the EPA designated the Los Angeles County portion of the SoCAB as a nonattainment area under the federal lead classification due to the addition of source-specific monitoring under the new federal regulation. This designation was based on two source-specific monitors in the City of Vernon and the City of Industry that exceeded the new standard in the 2007-to-2009 period. The remainder of the SoCAB, outside the Los Angeles County nonattainment area, remains in attainment of the new 2008 lead standard. On May 24, 2012, CARB approved the State Implementation Plan revision for the federal lead standard, which the EPA revised in 2008. Lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011. The State Implementation Plan revision was submitted to the EPA for approval.

⁷ The 2016 AQMP requests a reclassification from moderate to serious nonattainment for the 2012 National PM_{2.5} standard.

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SCAQMD Rules and Regulations

All projects are subject to SCAQMD rules and regulations in effect at the time of activity, including:

- **Rule 401, Visible Emissions.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in visible emissions. Specifically, the rule prohibits the discharge of any air contaminant into the atmosphere by a person from any single source of emission for a period or periods aggregating more than three minutes in any one hour that is as dark as or darker than designated No. 1 on the Ringelmann Chart, as published by the US Bureau of Mines.
- **Rule 402, Nuisance.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in a public nuisance. Specifically, this rule prohibits any person from discharging quantities of air contaminants or other material from any source such that it would result in an injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. Additionally, the discharge of air contaminants would also be prohibited where it would endanger the comfort, repose, health, or safety of any number of persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.
- **Rule 403, Fugitive Dust.** This rule is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust, and requires best available control measures to be applied to earth moving and grading activities. In general, the rule prohibits new developments from the installation of wood-burning devices.
- **Rule 445, Wood Burning Devices.** This rule is intended to reduce the emission of particulate matter from wood-burning devices and applies to manufacturers and sellers of wood-burning devices, commercial sellers of firewood, and property owners and tenants that operate a wood-burning device.
- **Rule 1113, Architectural Coatings.** This rule limits the VOC content of architectural coatings used on projects in the SCAQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the SCAQMD must comply with the current VOC standards set in this rule.
- **Rule 1403, Asbestos Emissions from Demolition/Renovation Activities.** The purpose of this rule is to specify work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials. The requirements for demolition and renovation activities include asbestos surveying, notification, removal procedures, and time schedules; handling and cleanup procedures; and storage, disposal, and landfilling requirements for asbestos-containing waste materials. All operators are required to maintain records, including waste shipment records, and are required to use appropriate warning labels, signs, and markings.

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5.1.1.2 EXISTING CONDITIONS

South Coast Air Basin

The proposed project site is in the SoCAB, which includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semipermanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds (SCAQMD 2005).

Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the project site is the Riverside Citrus Exp. (ID 047473). The average low is reported at 41.3°F in December, and the average high is 94.4°F in August (WRCC 2019).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from October through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. The historical rainfall average for the project area is 9.86 inches per year (WRCC 2019).

Humidity

Although the SoCAB has a semiarid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB (SCAQMD 1993).

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur, both in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

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The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (SCAQMD 2005).

Inversions

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These are the marine/subsidence inversion and the radiation inversion. The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area (SCAQMD 2005).

SoCAB Nonattainment Areas

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the State Implementation Plan. Areas are classified as attainment or nonattainment areas for particular pollutants depending on whether they meet the ambient air quality standards. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

- ***Unclassified.*** A pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- ***Attainment.*** A pollutant is in attainment if the AAQS for that pollutant was not violated at any site in the area during a three-year period.
- ***Nonattainment.*** A pollutant is in nonattainment if there was at least one violation of an AAQS for that pollutant in the area.
- ***Nonattainment/Transitional.*** A subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

The attainment status for the SoCAB is shown in Table 5.1-2.

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Table 5.1-2 Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Extreme Nonattainment	Extreme Nonattainment
PM ₁₀	Serious Nonattainment	Attainment
PM _{2.5}	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO ₂	Nonattainment (SR-60 Near Road only) ¹	Attainment/Maintenance
SO ₂	Attainment	Attainment
Lead	Attainment	Nonattainment (Los Angeles County only) ²
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2017.

¹ On February 21, 2019, CARB's Board approved the separation of the area that runs along the State Route 60 (SR 60) corridor through portions of Riverside, San Bernardino, and Los Angeles Counties from the remainder of the SoCAB for state nonattainment designation purposes. The Board designated this corridor as nonattainment. The remainder of the SoCAB remains in attainment for NO₂ (CARB 2019).

² In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new 2008 federal AAQS as a result of large industrial emitters. Remaining areas in the SoCAB are unclassified.

Multiple Air Toxics Exposure Study IV

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on existing ambient concentrations of TACs and the potential health risks from air toxics in the SoCAB. In 2008, SCAQMD conducted its third update, MATES III, based on the Office of Environmental Health Hazards Assessment's (OEHHA) 2003 Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (2003 HRA Guidance Manual). The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,200 in a million. The largest contributor to this risk was diesel exhaust, which accounted for 84 percent of the cancer risk (SCAQMD 2008a).

SCAQMD recently released the fourth update, MATES IV, which was also based on OEHHA's 2003 HRA Guidance Manual. The results showed that the overall monitored risk for excess cancer from a lifetime exposure to ambient levels of air toxics decreased to approximately 418 in one million. Compared to the 2008 MATES III, monitored excess cancer risks decreased by approximately 65 percent. Approximately 90 percent of the risk is attributed to mobile sources, and 10 percent is attributed to TACs from stationary sources, such as refineries, metal processing facilities, gas stations, and chrome plating facilities. The largest contributor to this risk was diesel exhaust, which accounted for approximately 68 percent of the air toxics risk. Compared to MATES III, MATES IV found substantial improvement in air quality and associated decrease in air toxics exposure. As a result, the estimated basinwide population-weighted risk decreased by approximately 57 percent since MATES III (SCAQMD 2015a).

OEHHA updated the guidelines for estimating cancer risks on March 6, 2015 (OEHHA 2015). The new method uses higher estimates of cancer potency during early life exposures, which result in a higher calculation of risk. There are also differences in the assumptions on breathing rates and length of residential exposures. When combined, SCAQMD estimates that risks for a given inhalation exposure level will be about 2.7 times higher than the risk identified in MATES IV using the 2015 OEHHA guidance methodology (e.g., 2.7 times higher than 418 in one million overall excess cancer risk) (SCAQMD 2015a).

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Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the proposed project site are best documented by measurements taken by the SCAQMD. The proposed project is located within Source Receptor Area (SRA) 23 – Metropolitan Riverside County.⁸ The air quality monitoring station closest to the proposed project is the Riverside-Rubidoux Monitoring Station, which is one of 31 monitoring stations SCAQMD operates and maintains within the SoCAB.⁹ Data from this station is summarized in Table 5.1-3. The data show that the area regularly exceeds the state and federal one-hour and eight-hour O₃ standards within the last five recorded years. Additionally, the area has regularly exceeded the state PM₁₀ standards and the federal PM_{2.5} standard.

Table 5.1-3 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Thresholds Were Exceeded and Maximum Levels ¹				
	2013	2014	2015	2016	2017
Ozone (O₃)					
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	0	1	1	1	2
Federal 8-hour ≥ 0.07 ppm (days exceed threshold)	36	66	55	69	81
Federal 8-Hour > 0.075 ppm (days exceed threshold)	26	71	39	47	58
Max. 1-Hour Conc. (ppm)	0.123	0.141	0.132	0.142	0.145
Max. 8-Hour Conc. (ppm)	0.103	0.104	0.105	0.104	0.118
Nitrogen Dioxide (NO₂)					
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0	0	0
Federal 1-Hour ≥ 0.100 ppm (days exceed threshold)	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.060	0.060	0.057	0.073	0.063
Coarse Particulates (PM₁₀)					
State 24-Hour > 50 µg/m ³ (days exceed threshold)	86	119	87	60	98
Federal 24-Hour > 150 µg/m ³ (days exceed threshold)	0	0	0	0	0
Max. 24-Hour Conc. (µg/m ³)	135	100	69	84	92
Fine Particulates (PM_{2.5})					
Federal 24-Hour > 35 µg/m ³ (days exceed threshold)	6	5	9	5	7
Max. 24-Hour Conc. (µg/m ³)	60.3	48.9	54.7	51.5	50.3

Source: CARB 2018. Data obtained from the Riverside Rubidoux Monitoring Station.
ppm: parts per million; parts per billion, µg/m³: micrograms per cubic meter

⁸ Per SCAQMD Rule 701, an SRA is defined as follows: “A source area is that area in which contaminants are discharged and a receptor area is that area in which the contaminants accumulate and are measured. Any of the areas can be a source area, a receptor area, or both a source and receptor area.” There are 37 SRAs within the SCAQMD’s jurisdiction.

⁹ Locations of the SRAs and monitoring stations are shown here: <http://www.aqmd.gov/docs/default-source/default-document-library/map-of-monitoring-areas.pdf>.

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Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are also considered sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, because the majority of the workers tend to stay indoors most of the time. In addition, the workforce is generally the healthiest segment of the population. The nearest offsite sensitive receptors are the single-family residences surrounding the project site to the north, south, east, and west. The nearest onsite sensitive receptors include the students and staff on campus.

5.1.2 Plans, Programs, and Policies

5.1.2.1 REGULATORY REQUIREMENTS

- RR AQ-1 New buildings are required to achieve the current California Building Energy and Efficiency Standards (Title 24, Part 6) and California Green Building Standards Code (CALGreen) (Title 24, Part 11). The 2016 Building and Energy Efficiency Standards are effective starting on January 1, 2017, and the 2019 Building and Energy Efficiency Standards will become effective January 1, 2020. The Building Energy and Efficiency Standards and CALGreen are updated tri-annually with a goal to achieve net zero energy for residential buildings by 2020 and nonresidential buildings by 2030.
- RR AQ-2 Construction activities will be conducted in compliance with 13 California Code of Regulations Section 2499, which requires that nonessential idling of construction equipment is restricted to five minutes or less.
- RR AQ-3 Construction activities will be conducted in compliance with any applicable South Coast Air Quality Management District rules and regulations, including but not limited to the following:
- Rule 403, Fugitive Dust, for controlling fugitive dust and avoiding nuisance.
 - Rule 402, Nuisance, which states that a project shall not “discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.”

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- Rule 1113, which limits the volatile organic compound content of architectural coatings.
- Rule 1466, Soil Disturbance. Projects that involve earth-moving activities of more than 50 cubic yards of soil with applicable toxic air contaminants are subject to this rule.

5.1.3 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.
- AQ-2 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.
- AQ-3 Expose sensitive receptors to substantial pollutant concentrations.
- AQ-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

5.1.3.1 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT THRESHOLDS

CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. SCAQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation based on substantial evidence. The analysis of the proposed project's air quality impacts follows the guidance and methodologies recommended in SCAQMD's *CEQA Air Quality Handbook* and the significance thresholds on SCAQMD's website (SCAQMD 1993).¹⁰

Regional Significance Thresholds

SCAQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB, shown in Table 5.1-4. The table lists thresholds that are applicable for all projects uniformly, regardless of size or scope. There is growing evidence that although ultrafine particulate matter contributes a very small portion of the overall atmospheric mass concentration, it represents a greater proportion of the health risk from PM. However, the EPA and CARB have not adopted AAQS to regulate ultrafine particulate matter; therefore, SCAQMD has not developed thresholds for them.

¹⁰ SCAQMD's Air Quality Significance Thresholds are current as of March 2015 and can be found at: <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook>.

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Table 5.1-4 SCAQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROGs)/Volatile Organic Compounds (VOCs)	75 lbs/day	55 lbs/day
Nitrogen Oxides (NO _x)	100 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Sulfur Oxides (SO _x)	150 lbs/day	150 lbs/day
Particulates (PM ₁₀)	150 lbs/day	150 lbs/day
Particulates (PM _{2.5})	55 lbs/day	55 lbs/day

Source: SCAQMD 2015b.

Projects that exceed the regional significance threshold contribute to the nonattainment designation of the SoCAB. The attainment designations are based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health effects. Exposure to fine particulate pollution and ozone causes myriad health impacts, particularly to the respiratory and cardiovascular systems:

- Linked to increased cancer risk (PM_{2.5}, TACs)
- Aggravates respiratory disease (O₃, PM_{2.5})
- Increases bronchitis (O₃, PM_{2.5})
- Causes chest discomfort, throat irritation, and increased effort to take a deep breath (O₃)
- Reduces resistance to infections and increases fatigue (O₃)
- Reduces lung growth in children (PM_{2.5})
- Contributes to heart disease and heart attacks (PM_{2.5})
- Contributes to premature death (O₃, PM_{2.5})
- Linked to lower birth weight in newborns (PM_{2.5}) (SCAQMD 2015d)

Exposure to fine particulates and ozone aggravates asthma attacks and can amplify other lung ailments such as emphysema and chronic obstructive pulmonary disease. Exposure to current levels of PM_{2.5} is responsible for an estimated 4,300 cardiopulmonary-related deaths per year in the SoCAB. In a landmark children's health study, University of Southern California scientists found that lung growth improved as air pollution declined for children aged 11 to 15 in five communities in the SoCAB (SCAQMD 2015c).

Mass emissions in Table 5.1-4 are not correlated with concentrations of air pollutants but contribute to the cumulative air quality impacts in the SoCAB. Therefore, regional emissions from a single project do not single-handedly trigger a regional health impact, and it is speculative to identify how many more individuals in the air basin would be affected by the health effects listed above. SCAQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals exposed to elevated concentrations of air pollutants in the SoCAB and has established thresholds that would be protective of these individuals. To achieve the health-based standards established by the EPA, SCAQMD prepares an AQMP that details regional programs to attain the AAQS. The project's consistency with the AQMP is analyzed below.

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CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles and introduction of cleaner fuels, as well as implementation of control technology on industrial facilities, CO concentrations in the SoCAB and the state have steadily declined.

In 2007, the SoCAB was designated in attainment for CO under both the California AAQS and National AAQS. The CO hotspot analysis conducted for the attainment by SCAQMD did not predict a violation of CO standards at the busiest intersections in Los Angeles during the peak morning and afternoon periods.¹¹ As identified in SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB in years before redesignation were a result of unusual meteorological and topographical conditions and not of congestion at a particular intersection. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2017).¹²

Localized Significance Thresholds

SCAQMD identifies localized significance thresholds (LST), shown in Table 5.1-5. Emissions of NO₂, CO, PM₁₀, and PM_{2.5} generated at a project site (offsite mobile-source emissions are not included in the LST analysis) could expose sensitive receptors to substantial concentrations of criteria air pollutants. A project that generates emissions that trigger a violation of the AAQS when added to the local background concentrations would generate a significant impact.

¹¹ The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour.

¹² The CO hotspot analysis refers to the modeling conducted by the Bay Area Air Quality Management District for its CEQA Guidelines because it is based on newer data and considers the improvement in mobile-source CO emissions. Although meteorological conditions in the Bay Area differ from those in the Southern California region, the modeling conducted by BAAQMD demonstrates that the net increase in peak hour traffic volumes at an intersection in a single hour would need to be substantial. This finding is consistent with the CO hotspot analysis SCAQMD prepared as part of its 2003 AQMP to provide support in seeking CO attainment for the SoCAB. Based on the analysis prepared by SCAQMD, no CO hotspots were predicted for the SoCAB. As noted in the preceding footnote, the analysis included some of Los Angeles' busiest intersections, with daily traffic volumes of 100,000 or more peak hour vehicle trips operating at LOS E and F.

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Table 5.1-5 SCAQMD Localized Significance Thresholds

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (California AAQS)	20 ppm
8-Hour CO Standard (California AAQS)	9.0 ppm
1-Hour NO ₂ Standard (California AAQS)	0.18 ppm
Annual NO ₂ Standard (California AAQS)	0.03 ppm
24-Hour PM ₁₀ Standard – Construction (SCAQMD) ¹	10.4 µg/m ³
24-Hour PM _{2.5} Standard – Construction (SCAQMD) ¹	10.4 µg/m ³
24-Hour PM ₁₀ Standard – Operation (SCAQMD) ¹	2.5 µg/m ³
24-Hour PM _{2.5} Standard – Operation (SCAQMD) ¹	2.5 µg/m ³
Annual Average PM ₁₀ Standard (SCAQMD) ¹	1.0 µg/m ³

Source: SCAQMD 2015b.

ppm – parts per million; µg/m³ – micrograms per cubic meter

¹ Threshold is based on SCAQMD Rule 403. Since the SoCAB is in nonattainment for PM₁₀ and PM_{2.5}, the threshold is established as an allowable change in concentration. Therefore, background concentration is irrelevant.

To assist lead agencies, SCAQMD developed screening-level LSTs to back-calculate the mass amount (pounds per day) of emissions generated onsite that would trigger the levels shown in Table 5.1-6 for projects under five acres. These “screening-level” LSTs tables are the localized significance thresholds for all projects of five acres and less; however, they can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required.

The screening-level LSTs in SRA 23 are shown in Table 5.1-6. For construction activities, LSTs are based on the acreage disturbed per day based on equipment use (SCAQMD 2011). The different types of construction activities would require different equipment mixes, resulting in multiple LSTs. For operation, the screening-level LSTs are based on project site size up to five acres per SCAQMD methodology (SCAQMD 2008b).

Table 5.1-6 SCAQMD Screening-Level Localized Significance Thresholds

Acreage Disturbed	Threshold (lbs/day) ¹			
	Nitrogen Oxides (NO _x)	Carbon Monoxide (CO)	Coarse Particulates (PM ₁₀)	Fine Particulates (PM _{2.5})
Construction Phase				
1.00-Acre or Less LSTs	118	602	4	3
1.88-Acre or Less LSTs	163	848	7	4
1.94-Acre or Less LSTs	167	865	7	4
2.00-Acre or Less LSTs	170	883	7	4
Operational Phase				
2.21-acre LST	177	931	2	1

Source: SCAQMD 2008b, 2011. Based on receptors in SRA 23.

¹ Construction and operation LSTs are based on sensitive receptors within 82 feet (25 meters) of the proposed project site.

Health Risk Thresholds

Whenever a project would require use of chemical compounds that have been identified in SCAQMD Rule 1401, placed on CARB’s air toxics list pursuant to AB 1807, or placed on the EPA’s National Emissions

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Standards for Hazardous Air Pollutants, a health risk assessment is required by the SCAQMD. Table 5.1-7 lists the TAC incremental risk thresholds for operation of a project. The purpose of this environmental evaluation is to identify the significant effects of the proposed project on the environment, not the significant effects of the environment on the proposed project. *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (Case No. S213478). CEQA does not require an analysis of the environmental effects of attracting development and people to an area. However, the environmental document must analyze the impacts of environmental hazards on future users when a proposed project exacerbates an existing environmental hazard or condition. Residential, commercial, and office uses do not use substantial quantities of TACs and typically do not exacerbate existing hazards, so these thresholds are typically applied to new industrial projects.

Table 5.1-7 SCAQMD Toxic Air Contaminants Incremental Risk Thresholds

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Hazard Index (project increment)	≥ 1.0
Cancer Burden in areas ≥ 1 in 1 million	> 0.5 excess cancer cases
Source: SCAQMD 2015b.	

5.1.4 Environmental Impacts

5.1.4.1 METHODOLOGY

This air quality evaluation was prepared in accordance with the requirements of CEQA to determine if significant air quality impacts are likely in conjunction with the type and scale of development associated with the proposed project. Air quality emissions modeling was completed for the project using the California Emissions Estimator Model (CalEEMod) recommended by the SCAQMD. Air quality modeling datasheets are in Appendix B of this Draft EIR and are based on the following:

- **Construction.** Construction emissions associated with the proposed project area are based on CalEEMod defaults, which are based on surveys of construction activities conducted by SCAQMD. CalEEMod defaults are based on 2.2 acres of grading/demolition associated with the demolition, new building construction, hardcourts and playcourts, parking lots, hardscape, and landscape. Project construction is anticipated to commence in 2020 and take approximately 12 months to complete. The demolition phase would entail demolition and removal of 12 portable classrooms buildings (12,520 square feet), 3,300 square feet of existing residential structures, and approximately 207 tons of asphalt. Vendor trips have been adjusted to account for water trucks. Table 5.1-8 shows the assumed construction activities, their duration, and equipment mix for each activity.
- **Area Sources.** Area sources are based on the CalEEMod defaults for emissions generated from the use of landscape fuels, consumer products, and cleaning supplies associated with the new classroom buildings.

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- **Energy.** The proposed buildings would be built to meet the 2019 Building Energy Efficiency Standards. Under the 2019 standards, nonresidential buildings will be 30 percent more energy efficient compared to the 2016 standards (CEC 2018).
- **Transportation.** The proposed project would not result in an increase in students; therefore, mobile source emissions are not modeled for the proposed project.

Table 5.1-8 Construction Activities, Phasing and Equipment

Activities	Duration (Days)	Equipment
Demolition	20	1 concrete/industrial saw; 1 rubber tired dozer, 3 tractor/loader/backhoe
Site Preparation	3	1 grader; 1 scraper; 1 tractor/loader/backhoe
Grading	6	1 grader; 1 rubber tired dozer; 2 tractor/loader/backhoe
Utility Trenching	7	1 excavator; 1 bore/drill rig; 1 tractor/loader/backhoe
Building Construction + Modernization	220	1 crane; 2 forklifts; 1 generator set; 1 tractor/loader/backhoe; 3 welders
Asphalt Paving	10	1 cement and mortar mixer; 1 paver; 1 paving equipment; 2 rollers; 1 tractor/loader/backhoe (overlaps with building construction)
Architectural Coating	10	1 air compressor (overlaps with building construction)

Source: CalEEMod 2016.3.2. Based on the preliminary information provided by the applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults projected over a one year timeframe.

5.1.4.2 IMPACT ANALYSIS

The applicable thresholds are identified in brackets after the impact statement.

Impact 5.1-1: The project is consistent with SCAQMD's 2016 Air Quality Management Plan. [Threshold AQ-1]

A consistency determination with the AQMP plays an important role in local agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing decision makers of the environmental effects of the project under consideration early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to the clean air goals in the AQMP.

The regional emissions inventory for the SoCAB is compiled by SCAQMD and SCAG. Regional population, housing, and employment projections developed by SCAG are based in part on cities' general plan land use designations. These projections form the foundation for the emissions inventory of the AQMP. They are incorporated into the regional transportation plan/sustainable communities strategy, compiled by SCAG to determine priority transportation projects and vehicle miles traveled in the SCAG region. As a result, changes in population, housing, or employment growth projections have the potential to affect SCAG's demographic projections and therefore the assumptions in SCAQMD's AQMP. Typically, only large, regionally significant projects have the potential to affect the regional growth projections. In addition, the consistency analysis is generally only required in connection with the adoption of general plans, specific plans, and other significant projects.

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The project involves the renovation and demolition of several existing classrooms in addition to construction of new school buildings. The planned improvements would not result in an increase in the number of students, so it would not have the potential to substantially affect SCAG's demographic projections. Furthermore, the long-term emissions generated by the proposed project would not generate criteria air pollutants that exceed the SCAQMD significance thresholds, which were established to determine whether a project has the potential to cumulatively contribute to the SoCAB's nonattainment designations (see Impacts 5.1-2 and 5.1-3). Therefore, implementation of the proposed project would not interfere with or obstruct implementation of the AQMP, and impacts would be less than significant.

Level of Significance: Less Than Significant.

Impact 5.1-2	Construction activities associated with the proposed project would not generate short-term emissions in exceedance of SCAQMD's threshold criteria, and therefore would not cumulatively contribute to the nonattainment designations of the SoCAB. [Thresholds AQ-2]
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The SoCAB is designated nonattainment for O₃ and PM_{2.5} under the California and National AAQS; nonattainment for PM₁₀ and the State Route 60 (SR 60) corridor through Riverside, San Bernardino, and Los Angeles County for NO₂ under the California AAQS; and nonattainment for lead (Los Angeles County only) under the National AAQS (see Table 5.1-2). According to SCAQMD methodology, any project that does not exceed or can be mitigated to less than the daily threshold values would not add significantly to a cumulative impact (SCAQMD 1993).

Construction activities produce combustion emissions from various sources, such as onsite heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. Site preparation activities produce fugitive dust emissions (PM₁₀ and PM_{2.5}) from demolition and soil-disturbing activities, such as grading. Air pollutant emissions from construction activities onsite would vary daily as construction activity levels change. The proposed project is anticipated to be constructed over an approximately 12-month period, commencing in summer 2020. Construction air pollutant emissions are based on the preliminary information from Table 5.1-8.

Construction would entail demolition of existing asphalt and buildings, site preparation, grading, utility trenching, construction of newly proposed buildings and modernization of existing buildings, paving, and architectural coating. An estimate of maximum daily construction emissions for the proposed project is provided in Table 5.1-9. As shown in the table, project-related construction activities would not generate emissions that would exceed the SCAQMD regional significance thresholds for construction and would not cumulatively contribute to the nonattainment of the SoCAB. Therefore, project-related construction activities would result in less than significant regional air quality impacts.

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Table 5.1-9 Maximum Daily Regional Construction Emissions

Construction Phase	Pollutants (pounds per day) ^{1, 2}					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Demolition + Demo Haul	2	23	15	<1	2	1
Site Preparation	2	20	12	<1	2	1
Grading	2	22	11	<1	4	2
Utility Trenching	1	8	8	<1	<1	<1
Building Construction + Modernization	3	19	17	<1	1	1
Paving	2	11	12	<1	1	1
Architectural Coating	37	2	2	<1	<1	<1
Construction + Modernization + Paving + Coating	41	31	31	<1	2	2
Maximum Daily Emissions	41	31	31	<1	4	2
SCAQMD Regional Construction Threshold	75	100	550	150	150	55
Significant?	No	No	No	No	No	No

Source: CalEEMod Version 2016.3.2

Emissions totals may not equal 100 percent due to rounding.

¹ Based on the preliminary information provided by the Applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment.

² Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers.

Level of Significance: Less Than Significant.

Impact 5.1-3: Long-term operation of the project would not generate emissions in exceedance of SCAQMD's threshold criteria, and therefore would not cumulatively contribute to the nonattainment designations of the SoCAB. [Thresholds AQ-2]

The SoCAB is designated nonattainment for O₃ and PM_{2.5} under the California and National AAQS, nonattainment for PM₁₀ and the State Route 60 (SR 60) corridor through Riverside, San Bernardino, and Los Angeles County for NO₂, and nonattainment for lead (Los Angeles County only) under the National AAQS (see Table 5.1-2). According to SCAQMD methodology, any project that does not exceed or can be mitigated to less than the daily threshold values would not add significantly to a cumulative impact (SCAQMD 1993).

Because the project would not generate an increase in students and associated vehicle trips, the primary change in criteria air pollutants generated by the project would be associated with building energy (i.e., natural gas used for heating and cooking) and area sources (i.e., landscaping fuel and consumer products). Criteria air pollutant emissions were modeled using CalEEMod Version 2016.3.2. The emissions associated with the project's area and energy sources are shown in Table 5.1-10. As indicated in the table, the proposed project would not exceed the regional significance thresholds for operation-related emissions, and therefore would not cumulatively contribute to the nonattainment designations of the SoCAB.

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Table 5.1-10 Net Change in Maximum Daily Regional Operational Phase Emissions

Source	Criteria Air Pollutants (lbs/day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	<1	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	<1	<1	<1	<1	<1	<1
Total	<1	<1	<1	<1	<1	<1
SCAQMD Regional Thresholds	55	55	550	150	150	55
Exceeds Regional Thresholds?	No	No	No	No	No	No

Source: CalEEMod Version 2016.3.2. Highest winter or summer emissions are reported.
lbs/day = pounds per day

Level of Significance: Less Than Significant.

Impact 5.1-4: The proposed project could expose sensitive receptors to substantial pollutant concentrations. [Threshold AQ-3]

A project could expose sensitive receptors to elevated pollutant concentrations during construction activities if it would cause or contribute significantly to elevated levels. The following describes changes in localized impacts from short-term construction activities and long-term operation of the proposed project.

Localized Construction Impacts

Unlike the mass of construction and operations emissions shown in the regional emissions analysis in Tables 5.1-9 and 5.1-10, which are described in pounds per day, localized concentrations refer to an amount of pollutant in a volume of air (ppm or µg/m³) and can be correlated to potential health effects.

Construction-Phase LSTs

Screening-level LSTs (pounds per day) are the amount of project-related mass emissions generated at which localized concentrations (ppm or µg/m³) could exceed the AAQs for NO_x or CO for which the SoCAB is designated nonattainment or incrementally exceed the concentrations allowed under SCAQMD Rule 403 for PM₁₀ and PM_{2.5}. The screening-level LSTs are based on the proposed project site size and distance to the nearest sensitive receptor and are based on the California AAQS, which are the most stringent AAQS, established to protect sensitive receptors most susceptible to further respiratory distress. Table 5.1-11 shows the maximum daily construction emissions (pounds per day) generated during onsite construction activities at the project site compared with the SCAQMD's screening-level LSTs thresholds. Onsite emissions include fugitive dust emissions and exhaust emissions associated with operation of off-road construction equipment in addition to fugitive dust from the movement of dirt.

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Table 5.1-11 Maximum Daily Onsite Construction Emissions

Source	Pollutants (pounds per day) ^{1,2}			
	NO _x	CO	PM ₁₀	PM _{2.5}
Utility Trenching	8	8	<1	<1
Building Construction + Modernization	17	15	1	1
Paving	11	12	1	1
Architectural Coating	2	2	<1	<1
Building Construction + Modernization + Paving + Coating	30	28	2	2
1.00-Acre or Less LSTs	118	602	4	3
Exceeds LST?	No	No	No	No
Grading	21	10	4	2
1.88-Acre or Less LSTs	163	848	7	4
Exceeds LST?	No	No	No	No
Site Preparation	20	11	1	1
1.94-Acre or Less LSTs	167	865	7	4
Exceeds LST?	No	No	No	No
Demolition + Demo Haul	21	15	2	1
2.00-Acre or Less LSTs	170	883	7	4
Exceeds LST?	No	No	No	No

Source: CalEEMod Version 2016.3.2; SCAQMD 2008b, and SCAQMD 2011. In accordance with SCAQMD methodology, only on-site stationary sources and mobile equipment occurring on the proposed project site are included in the analysis. Construction LSTs are based on sensitive receptors in SRA 23 within 82 feet (25 meters) of the proposed project site.

Emissions totals may not equal 100 percent due to rounding.

¹ Based on the information provided by the Applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment.

² Includes implementation of fugitive dust control measures required by SCAQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers.

Construction Health Risk

SCAQMD currently does not require health risk assessments to be conducted for short-term emissions from construction equipment. Emissions from construction equipment primarily consist of diesel particulate matter (DPM). In March 2015 the OEHHA adopted an updated guidance document for the preparation of health risk assessments. OEHHA developed a cancer risk factor and noncancer chronic reference exposure level for DPM, but these factors are based on continuous exposure over a 30-year time frame. No short-term acute exposure levels have been developed for DPM. The project would be constructed in stages over approximately one year, which would limit the exposure to receptors. Additionally, construction activities would not exceed the screening-level LST significance thresholds. For these reasons, it is anticipated that construction emissions would not pose a threat to off-site receptors near the proposed project, and project-related construction health impacts would be less than significant.

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Localized Operational Impacts

Operational Phase LSTs

Operation of the proposed project would not generate substantial quantities of emissions from onsite, stationary sources. Land uses that have the potential to generate substantial stationary sources of emissions that would require a permit from SCAQMD include industrial land uses, such as chemical processing and warehousing operations where substantial truck idling could occur onsite. The proposed project does not fall within these categories of uses. While operation of the proposed project could result in the use of standard onsite mechanical equipment such as heating, ventilation, and air conditioning units in addition to occasional use of landscaping equipment for project site maintenance, air pollutant emissions generated from these activities compared to the existing land use would be nominal, as shown in Table 5.1-12, and would not exceed SCAQMD's screening-level thresholds for onsite operational emissions. Therefore, localized air quality impacts from project-related operations would be less than significant.

Table 5.1-12 Net Maximum Daily On-Site Localized Operation Emissions

Source	Pollutants (pounds per day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Area	<1	<1	<1	<1
SCAQMD 2.21-acre LST	177	931	2	1
Exceeds LST?	No	No	No	No

Source: CalEEMod Version 2016.3.2.; SCAQMD 2008.

Notes: Operation LSTs are based on sensitive receptors in SRA 23 within 82 feet (25 meters) of the proposed project site.

Emissions totals may not equal 100 percent due to rounding.

CO Hotspots

Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited—in order to generate a significant CO impact. The proposed project would not result in an increase in peak vehicle trips. Thus, implementation of the proposed project would not produce the volume of traffic required to generate a CO hotspot. Therefore, implementation of the proposed project would not have the potential to substantially increase CO hotspots at intersections near the project site, and impacts would be less than significant.

Level of Significance: Less Than Significant.

Impact 5.1-5: The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. [Threshold AQ-4]

The threshold for odor is if a project creates an odor nuisance pursuant to SCAQMD Rule 402, Nuisance, which states:

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A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

The type of facilities that are considered to have objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities.

The proposed project would redevelop the school campus, which would not fall within the types of uses that are associated with foul odors that constitute a public nuisance. During construction activities, construction equipment exhaust and application of asphalt and architectural coatings would temporarily generate odors. However, construction-related odor emissions would be temporary and intermittent and would not affect a significant number of people.

5.1.5 Cumulative Impacts

In accordance with SCAQMD's methodology, any project that produces a significant project-level regional air quality impact in an area that is in nonattainment contributes to the cumulative impact. Consistent with the methodology, projects that do not exceed the regional significance thresholds would not result in significant cumulative impacts. Cumulative projects in the local area include new development and general growth in the proposed project area. The greatest source of emissions in the SoCAB is mobile sources. Due to the extent of the area potentially impacted by cumulative project emissions (i.e., the SoCAB), SCAQMD considers a project cumulatively significant when project-related emissions exceed the SCAQMD regional emissions thresholds shown in Table 5.1-4 (SCAQMD 1993).

Construction

The SoCAB is designated nonattainment for O₃ and PM_{2.5} under the California and National AAQS and nonattainment for PM₁₀ under the California AAQS,¹³ and nonattainment for lead (Los Angeles County only) under the National AAQS. Construction of cumulative projects will further degrade the regional and local air quality. Air quality will be temporarily impacted during construction activities. As shown in Table 5.1-9, the proposed project's contribution to cumulative air quality impacts is not significant. Therefore, project-related construction emissions are below the SCAQMD significance thresholds on a project and cumulative basis.

Operation

For operational air quality emissions, any project that does not exceed or can be mitigated to less than the daily regional threshold values is not considered by SCAQMD to be a substantial source of air pollution and does

¹³ Portions of the SoCAB along SR-60 in Los Angeles, Riverside, and San Bernardino counties are proposed nonattainment for NO₂ under the California AAQS.

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not make a cumulatively considerable contribution to a cumulative air quality impact. Operation of the proposed project would not result in emissions in excess of the SCAQMD regional emissions thresholds (see Table 5.1-10); therefore, the project also would not cumulatively contribute to significant health impacts in the SoCAB. Therefore, the air pollutant emissions associated with the proposed project would not be cumulatively considerable.

Level of Significance: Less Than Significant.

5.1.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the following impacts would be less than significant: 5.1-1, 5.1-2, 5.1-3, and 5.1-4.

5.1.7 Mitigation Measures

No mitigation measures are required.

5.1.8 Level of Significance After Mitigation

Impacts would be less than significant.

5.1.9 References

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5.2 CULTURAL RESOURCES

Cultural resources comprise archaeological and historical resources. Archaeology studies human artifacts, such as places, objects, and settlements that reflect group or individual religious, cultural, or everyday activities. Historical resources include sites, structures, objects, or places that are at least 50 years old and are significant for their engineering, architecture, cultural use or association, etc. In California, historic resources cover human activities over the past 12,000 years. Cultural resources provide information on scientific progress, environmental adaptations, group ideology, or other human advancements. This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential for implementation of the Longfellow Elementary School Expansion to impact cultural resources in the City of Riverside. The analysis in this section is based in part on the following information:

- *Historic Resource Evaluation Report for the Longfellow Elementary School Expansion Project, Riverside, Riverside County, California.* Prepared by ASM Affiliates, dated October 11, 2018

A complete copy of this study is in the technical appendices of this Draft EIR as Appendix C.

Terminology

Cultural Resources include places, objects, and settlements that reflect group or individual religious, archaeological, or architectural activities, or paleontological resources. Such resources provide information on scientific progress, environmental adaptations, group ideology, or human advancements. Cultural resources analyzed in this section include resources within the project site and, for purposes of assessing potential cumulative impacts, resources within a minimum of a one-mile radius beyond the boundaries of the project site.

Archaeological Resources are cultural resources of prehistoric or historic origin that reflect human activity. Archaeological resources include both structural ruins and buried resource (buildings, structures, objects, and sites of the built environment).

Historical Resources are buildings, structures, objects, sites, and districts that have been formally evaluated and found to meet one or more of the significance criteria identified in CEQA Section 15064.5 (a)(3). While most historical resources are 50 years old or older, resources that have achieved significance in less than 50 years may also be considered historic, provided that a sufficient time has passed to understand their historical importance.

Historic Districts are a concentration of historic buildings, structures, objects, or sites within precise boundaries that share a common historical, cultural, or architectural background and meet one of the criteria for significance.

Historical Context consists of “those patterns or trends in history by which a specific occurrence, property, or site is understood and its meaning (and ultimately its significance) is made clear.” A context may be organized by theme, geographic area, or chronology. Regardless of the frame of reference, a historical context is

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associated with a defined area and an identified period of significance. A historical context, therefore, provides a framework for the evaluation of the significance of a potential historic resource.

Physical Attributes “include style, structural type, size, scale, proportions, design, architectural details, method of construction, orientation, spatial arrangement or plan, materials, workmanship, artistry, and environmental relationships” (NPS, “How to Complete”).

5.2.1 Environmental Setting

5.2.1.1 REGULATORY FRAMEWORK

National, state, regional, and local laws, regulations, plans, and guidelines are summarized below.

Federal

United States Code, Title 16, §§ 470 et seq.

The **National Historic Preservation Act of 1966** (16 US Code §§ 470 et seq.) authorized the National Register of Historic Places (NRHP) and coordinates public and private efforts to identify, evaluate, and protect the nation’s historic and archaeological resources.

§ 106 (Protection of Historic Properties) of the National Historic Preservation Act of 1966 requires federal agencies to take into account the effects of their undertakings on historic properties. Section 106 Review refers to the federal review process designed to ensure that historic properties are considered during federal project planning and implementation. The Advisory Council on Historic Preservation, an independent federal agency, administers the review process to add resources to the NRHP with assistance from state historic preservation offices.

Code of Federal Regulations, Title 36, Chapter I, Part 60

The **National Register of Historic Places** is the nation’s official list of buildings, structures, objects, sites, and districts worthy of preservation because of their significance in American history, architecture, archeology, engineering, and culture. The NRHP recognizes resources of local, state and national significance which have been documented and evaluated according to uniform standards and criteria.

The NRHP includes districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture. The NRHP is administered by the National Park Service. Currently there are more than 76,000 listings that make up the NRHP, including all historic areas in the National Park System, over 2,300 National Historic Landmarks, and properties that have been listed because they are significant to the nation, a state, or a community.

Properties are nominated to the NRHP by the State Historic Preservation Officer (SHPO) of the state in which the property is located, by the Federal Preservation Officer for properties under federal ownership or control, or by the Tribal Historic Preservation Officer if a property is on tribal lands.

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Any individual or group may prepare a NRHP nomination. Thorough documentation of physical appearance and historic significance of the property is required. In California, completed nominations are submitted to the Office of Historic Preservation (OHP). After an application has been reviewed by OHP staff, it is submitted to the State Historical Resources Commission (SHRC) to determine whether or not the property meets criteria for evaluation, and the SHRC makes a recommendation to the SHPO to approve or disapprove the designation. Nominations recommended by the SHRC and approved by the SHPO are forwarded for consideration to the Keeper of the National Register at the National Park Service in Washington DC.

During the time the proposed nomination is reviewed by the SHPO, property owners and local officials are notified of the intent to nominate. Local officials and property owners are given the opportunity to comment on the nomination, and owners of private property are given an opportunity to object to or concur with the nomination. If the owner of a private property objects or the majority of owners objects to the nomination, the SHPO may forward the nomination to the National Park Service only for a determination of eligibility. Without formally listing the property in the NRHP, the National Park Service then determines whether the property is eligible for listing.

Properties may qualify for the NRHP when they meet any of four basic criteria:

- A. Are associated with events that have made a significant contribution to the broad patterns of history.
- B. Are associated with the lives of persons significant in our past.
- C. Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction.
- D. Have yielded, or may be likely to yield, information important in prehistory or history.

A final critical component of eligibility is “integrity.” Integrity refers to the ability of a property to convey its significance and the degree to which the property retains the identity, including physical and visual attributes, for which it is significant under the four basic criteria. The NRHP criteria recognize seven aspects or qualities of integrity: location, design, setting, materials, workmanship, feeling, and association.

State

California Public Resources Code, §§ 5020–5029.5

This code continued the former Historical Landmarks Advisory Committee as the **State Historical Resources Commission**. The commission oversees the administration of the California Register of Historical Resources and is responsible for the designation of State Historical Landmarks and Historical Points of Interest.

California Public Resources Code, §§ 5079–5079.65

This code defines the functions and duties of the **Office of Historic Preservation**. The OHP is responsible for the administration of federal- and state-mandated historic preservation programs in California and the California Heritage Fund.

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California Public Resources Code, § 5024.1

The **California Register of Historical Resources** (CRHR) is the state version of the NRHP program. The CRHR was enacted in 1992 and became official January 1, 1993. The CRHR was established to serve as an authoritative guide to the state's significant historical and archaeological resources.

Resources that may be eligible for listing include buildings, sites, structures, objects, and historic districts. CEQA identifies a historic resource as a property that is listed or eligible for listing on the CRHR or local registers. NRHP-listed properties are automatically included on the CRHR. The criteria for both are similar and described below with the NRHP letter (A, B, C, and D) followed by the corresponding CRHR number (1, 2, 3, and 4)

- **A/1:** For an association with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
- **B/2:** For an association with the lives of persons important to local, California, or national history;
- **C/3:** As an embodiment of the distinctive characteristics of a type, period, region, or method of construction, representative of the work of a master or high artistic values; or
- **D/4:** Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be “recognizable as historic resources and to convey the reasons for their significance.” Under CRHR regulations, “it is possible that historical resources may not retain sufficient integrity to meet the criteria for listing in the NRHP, but they may still be eligible for listing in the California Register.” OHP has consistently interpreted this to mean that a property eligible for the California Register must retain “substantial” integrity. Because CRHR regulations do not provide substantial written guidance on evaluating integrity, the NRHP bulletin, “How to Apply the National Register Criteria for Evaluation,” is used.

California Historical Landmarks are buildings, structures, sites, or places that have been determined to have statewide historical significance. The resource must be approved for designation by the county board of supervisors or the city/town council in whose jurisdiction it is located; be recommended by the SHRC; and be officially designated by the Director of California State Parks. A resource must meet at least one of these criteria:

- Be the first, last, only, or most significant of its type in the state or within a large geographic region (Northern, Central, or Southern California).
- Be associated with an individual or group having a profound influence on the history of California.
- Be a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer or master builder.

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California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of Historical Interest designated after December 1997 and recommended by the SHRC are also listed in the CRHR. No historical resource may be designated as both a California Historical Landmark and a Point of Historical Interest. If a Point of Historical Interest is subsequently granted status as a California Historical Landmark, the Point of Historical Interest designation is retired.

To be eligible for designation as a Point of Historical Interest, a resource must meet at least one of the following criteria:

- The first, last, only, or most significant of its type within the local geographic region (city or county).
- Associated with an individual or group having a profound influence on the history of the local area.
- A prototype or outstanding example of a period, style, architectural movement, or construction or is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

California Code of Regulations, Title 24, Part 8

The **California Historical Building Code** (CHBC) provides regulations and standards for the rehabilitation, preservation, restoration (including related reconstruction), or relocation of historical buildings. The standards are intended to allow the restoration or change of occupancy to preserve the historical building's original or restored elements and features. The CHBC also encourages energy conservation and a cost-effective approach to preservation; provides for reasonable safety from fire, seismic forces, or other hazards for occupants and users of historical buildings; and provides reasonable availability and usability by the physically disabled. In general, the CHBC provides flexibility in meeting code requirements. Many older buildings do not meet today's building code standards and may have to conform to new codes when doing major renovation or repair if they are not historically designated. A historically designated building would be exempt from some current building code requirements and/or may be able to meet code requirements using alternative means and methods. The CHBC is updated on a three-year cycle; the 2016 CHBC took effect on January 1, 2017.

California State Historical Building Safety Board

The California State Historical Building Safety Board, a unit of the Division of the State Architect in the State Department of General Services, adopts rules and regulations pursuant to the CHBC; adopts and submits alternative building standards for approval by the Building Standards Commission; and is the appeal and review body respecting the CHBC to state and local agencies or any affected party.

California Public Resources Code §§ 21000 et seq. and California Code of Regulations, Title 14 §§ 15000 et seq.

The **California Environmental Quality Act** and the **CEQA Guidelines** have specific provisions relating to the evaluation of a project's impact on historical resources. CEQA defines historical resources as "any object,

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building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.”

Public Resources Code (PRC) § 21084.1 of CEQA and § 15064.5 of the CEQA Guidelines together establish the prevailing test for determining whether a resource can or must be considered a historical resource under CEQA. First, a resource is considered a historical resource for purposes of CEQA if it is listed or “deemed eligible for listing” in the CRHR by the SHRC (PRC § 21084.1; 14 CCR § 15064.5[a][1]). Second, it will be considered a historical resource, based on a presumption of significance, if it is either (1) listed in a local register of historic resources as defined in PRC § 5010.1 or (2) identified in a local survey of historic resources meeting the criteria set forth in PRC § 5024.1 (PRC § 21084.1; 14 CCR § 15064.5[a][2]). If a resource meets either of these criteria, the lead agency must treat the resource as historically significant unless the “preponderance of the evidence” indicates that the resource is not historically significant.

Third, a lead agency may find a resource to be a historical resource even though it is not formally listed in the CRHR, listed in a local register, or identified in a local survey (PRC § 21084.1; 14 CCR § 15064.5[a][3][4]). Any such determination must be based on substantial evidence in light of the whole record (14 CCR § 15064.5[a][3]).

According to the CEQA Guidelines § 15064.5(b): “A project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.”

A substantial adverse change is defined in the CEQA Guidelines § 15064.5(4)(b)(1), as “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.” The significance of a historical resource is materially impaired, according to the CEQA Guidelines § 15064.5(4)(b)(2), when a project:

- (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
- (B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of the evidence that the resource is not historically or culturally significant; or
- (C) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

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The CEQA Guidelines provide that “generally” a project that follows the Secretary of the Interior’s Standards “shall be considered as mitigated to a level of less than a significant impact on the historical resource” (14 CCR §§ 15064.5[b][3], 15126.4[b]).

At the same time, however, a failure to precisely conform to the Secretary of the Interior’s Standards in all respects does not necessarily mean that a project has a significant adverse impact on historical resources. There are circumstances where a project impacting historical resources may fail to conform to the Secretary of the Interior’s Standards, and yet the lead agency can conclude based on substantial evidence that the overall impact is not a significant adverse impact because the project does not “materially impair” the historical resource within the meaning of § 15064.5(b).

Local

City of Riverside General Plan

The City of Riverside General Plan 2025 outlines policies related to the historic and prehistoric cultural resources in the city in the Historic Preservation Element of the plan. These policies aim to identify historic context exemplary of the history of the City of Riverside and reduce potential impacts to and promote preservation of prehistoric and historic cultural resources.

City of Riverside Historical Resources Guidelines

The City of Riverside adopted a historic preservation ordinance in 1969 (Title 20 of the Municipal Code), which allows for the designation of historic resources, significant public or semipublic interior spaces and features, historic signs, and historic districts to the City of Riverside Cultural Heritage Board.

Chapter 20.50 of the City of Riverside Municipal Code provides definitions and outlines criteria for the designation of a resource as a “landmark” or a “structure of merit.”

Landmark

A landmark is defined as any improvement or natural feature that is an exceptional example of a historical, archaeological, cultural, architectural, community, aesthetic, or artistic heritage of the City, retains a high degree of integrity, and meets one or more of the following criteria:

1. Exemplifies or reflects special elements of the City’s cultural, social, economic, political, aesthetic, engineering, architectural, or natural history;
2. Is identified with persons or events significant in local, state or national history;
3. Embodies distinctive characteristics of a style, type, period or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship;
4. Represents the work of a notable builder, designer, or architect, or important creative individual;

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5. Embodies elements that possess high artistic values or represents a significant structural or architectural achievement or innovation;
6. Reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning, or cultural landscape;
7. Is one of the last remaining examples in the City, region, State, or nation possessing distinguishing characteristics of an architectural or historical type or specimen; or
8. Has yielded or may be likely to yield, information important in history or prehistory.

An improvement or natural feature meeting one or more of the above criteria, yet not formally designated as a landmark by the City Council, may be an eligible landmark.

Structure or Resource of Merit

An improvement or natural feature meeting one or more of the above criteria, yet not having the high degree of integrity to qualify as a landmark, may qualify as a structure or resource of merit. A structure or resource of merit means any improvement or natural feature which contributes to the broader understanding of the historical, archaeological, cultural, architectural, community, aesthetic, or artistic heritage of the City, retains sufficient integrity, and:

1. Has a unique location or singular physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood community or of the City;
2. Is an example of a type of building which was once common but is now rare in its neighborhood, community or area;
3. Is connected with a business or use which was once common but is now rare;
4. A cultural resource that could be eligible under landmark criteria no longer exhibiting a high level of integrity, however, retaining sufficient integrity to convey significance under one or more of the landmark criteria;
5. Has yielded or may be likely to yield, information important in history or prehistory; or
6. An improvement or resource that no longer exhibits the high degree of integrity sufficient for landmark designation, yet still retains sufficient integrity under one or more of the landmark criteria to convey cultural resource significance as a structure or resource of merit.

Integrity

Integrity is the ability of a property convey its significance. The National Park Service publication, "How to Apply the National Register Criteria for Evaluation" (NRHP Bulletin No. 15), establishes how to evaluate the integrity of a property. The evaluation of integrity must be grounded in an understanding of a property's physical features and how they relate to the concept of integrity. Determining which of these aspects are most

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important to a property requires knowing why, where, and when a property is significant. To retain historic integrity, a property must possess several, and usually most, aspects of integrity:

1. Location is the place where the historic property was constructed or the place where the historic event occurred.
2. Design is the combination of elements that create the form, plan, space, structure, and style of a property.
3. Setting is the physical environment of a historic property and refers to the character of the site and the relationship to surrounding features and open space. Setting often refers to the basic physical conditions under which a property was built and the functions it was intended to serve. These features can be either natural or manmade, including vegetation, paths, fences, and relationships between other features or open space.
4. Materials are the physical elements that were combined or deposited during a particular period or time, and in a particular pattern or configuration to form a historic property.
5. Workmanship is the physical evidence of crafts of a particular culture or people during any given period of history or prehistory and can be applied to the property as a whole, or to individual components.
6. Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. It results from the presence of physical features that, when taken together, convey the property's historic character.
7. Association is the direct link between the important historic event or person and a historic property.

5.2.1.2 CULTURAL SETTING

Riverside History

The project site is situated in an area of land that was historically part of the traditional territories of the Cahuilla and Gabrieliño, near the border between the two societies. The Cahuilla's traditional territory includes western and parts of central Riverside County, northwestern Imperial County and northeastern San Diego County. The Gabrieliño's traditional territory included the islands of San Clemente, San Nicholas, and Santa Catalina, the coast from Aliso Creek in the south to Topanga Creek in the north and all of the Los Angeles Basin and the watersheds of the San Gabriel and Santa Ana Rivers (Riverside 2012).

The Spanish Period (1769–1821) was the exploration and settlement of the Riverside area by Europeans. During this time Riverside and surrounding areas were settled by the Spanish, with the 1771 founding of Mission San Gabriel Arcángel (Riverside 2012). The period between 1821 and 1848 is known as the Mexican Period, when Mexico controlled the area. This period saw an expansion of the rancho system with cattle ranching and tallow and hide trade increasing.

With the 1869 construction of the transcontinental railroad there was a great influx of American homesteaders and developers into the Riverside County area. The City of Riverside was founded in 1870 by John W. North and a group of his colleagues. The citrus industry and other agricultural exploits helped grow the city; with the construction of irrigation canals, such as the Gage Canal in the late 1880s, the city continued to grow and

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expand. The city was incorporated in 1883, and then in 1893 Riverside County was formed. The Riverside Public Utilities group was formed in 1895 and began to serve the City of Riverside with water and electricity.

The City has designated 106 historic landmarks: 51 residences, 33 structures (commercial and industrial buildings, schools, and churches), 22 other landmarks (bridges, statues, parks, trees, and a mausoleum), and 10 historic districts (Colony Heights, Heritage Square, Mission Inn, Mount Rubidoux, Prospect Place, Rosewood Place, Seventh Street East, Wood Streets, Seventh Street, and Evergreen Quarter) (Riverside 2002).

Desegregation Movement

The Desegregation Movement in the Riverside Unified School District from 1961 to 1965 is documented in about 25 documents on the District's website, including District Board minutes, *Riverside Press* newspaper articles, and Proposed Master Plan for School Integration (RUSD n.d.). The District stands out as one of the first large school districts in the United States to voluntarily desegregate. On September 7, 1965, a fire shut down a large portion of the Lowell School, one of three de facto segregated schools in Riverside. In addition to the fire damage, there were petitions and moves to protest the segregated schools from parents from the Lowell and Irving School areas, which prompted the Riverside Unified School Board to vote to begin the desegregation process on September 13, 1965. The Superintendent of Riverside Unified School District, Bruce Miller, published the Proposed Master Plan for School Integration on October 18, 1965 (RUSD 1965).

Although Longfellow Elementary School did not play a significant role during this period, several other elementary schools did: Emerson, Lowell, Irving, Victoria, and Casa Blanca.

Seventh Street East Historic District (1880–1945)

The City of Riverside Seventh Street East Historic District covers the area of Mission Inn Avenue / Seventh Street between Kansas Avenue and the Santa Fe Railroad Tracks.

The Seventh Street East Historic District is primarily residential, but also includes two historic depots, a citrus packinghouse, and the site of City founder John North's original home (now North Park). Residential development east of downtown was made possible in part by the Gage Canal, which brought water to the area. The district includes excellent examples of Victorian-era architectural styles dating from just after the subdivisions, as well as later Craftsman, Mission Revival, Spanish Colonial Revival and Classical Revival styles (Riverside, Historic Districts).

With a wide variety of architectural styles represented in the residential structures, Seventh Street East Historic District also stands out in significance as one of the oldest neighborhoods in the City of Riverside, with some residential structures dating from the 1880s representing the earliest planned residential developments in the city's history. The south half of the school campus, the two acquisition parcels, cul-de-sac, and alley are within Seventh Street East Historic District (ASM 2018).

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Project Site

Longfellow Elementary School

Portions of the school were originally constructed in 1890 on the north side of Seventh Street, between Franklin Avenue and Eucalyptus Avenue. In 1917 the school district purchased the property on the south side of Seventh Street and expanded the campus with the construction of an auditorium and a classroom building. For several years, the district maintained an orthopedic school in a classroom of the auditorium. The orthopedic school was discontinued in 1945. In 1946 the auditorium burned down and in 1948 several buildings were constructed: auditorium, classroom, and cafeteria. In 1949, eight more classrooms were added to the campus. Modernization, renovations, and portable building additions took place in 1964, 1967, 1970, 1975, 1977, and throughout the 1990's. In 2005 a new two-story classroom building was constructed to replace nine portable classroom buildings. The last major renovations were in 2007 and included landscaping and paving (RUSD 2011). In 1992 Seventh Street was closed off for safety reasons to form the current cul-de-sac (ASM 2018).

2210 Seventh Street

The 1,300-square-foot single-family one-story house was built in 1900. The parcel has an iron post and concrete block fence enclosing the front yard and a tall wooden fence along the east side on Franklin Avenue. At one point the architecture style probably represented Folk Victorian or early Craftsman style architecture. The property can be broadly associated with the context of community planning and development of Riverside.

The house currently has no character-defining features of a specific architectural style. It has an L-shaped plan and a side-facing gable roof with a front-facing cross gable at the northwest corner. An additional front-facing gable dormer punctuates the center of the side gable on the main façade. A shed-roof porch supported by square posts is located at the junction of the gables. It is accessed by a set of three concrete steps leading to the front entrance which consists of a wood door. Two aluminum-framed windows are located east of the entrance, and an additional pair of windows is in the gable end of the front façade.

The west façade has an aluminum slider sash near the north corner and a smaller slider sash to the south. On the east façade there is a similar window to the north and a slightly smaller version to the south. A shed-roof addition is on the east side of the rear façade. The roof extends to form a porch sheltering a rear entrance with a paneled wood door. A smaller front-facing gable is on the rear façade and is punctuated by a single aluminum slider sash.

One of the first occupants of 2110 Seventh Street was Eleazar Bentley Hayes. He had a distinguished career and appears important to local history in Michigan, but his time in Riverside was brief and not particularly significant. No other occupants were of local or historical importance.

2226 Seventh Street

The 1,100-square-foot single-family one-story house was built in 1910. The house has elements of the Craftsman style. It has a rectangular plan and rests on a concrete block foundation. The side-gable roof has a moderate pitch and is punctuated by a gabled window dormer on the primary (north) façade. Both the main and gable roofs have overhanging eaves with narrow exposed rafter tails. The roof extends over the entrance

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to form a full-front porch supported by four columns. The entrance is centrally located and consists of a paneled wood door currently obscured behind an aluminum screen door. Two wide one-over-one double-hung sashes flank the entrance.

The rear façade shows evidence of a sleeping porch that was enclosed to provide an additional room. It has a row of five connected casement sashes and a single fixed sash to the west. It also appears that a utility room was added off the kitchen at some point after the initial construction of the house. The rear entrance is located in this addition, west of the sleeping porch, and has a glazed upper panel in the solid wood door. A vent punctuates the gable at the attic level. A similar vent is in the gable end on the west façade which has two additional one-over-one double hung sashes with wood frames. The east façade also has a vent in the gable end with a one-over-one double hung sash centered below it. A row of four casement sashes are just south of the window. Most of the house is clad in narrow wood clapboards, with some wider clapboards on the utility room addition and some vertical siding on the sleeping porch.

The interior has not been significantly altered since its initial construction and shares the floorplan of a house featured in “Ye Planry” Catalogue of Homes from 1908. The living room and dining room are separated by a colonnade with columns supported on pedestals. The dining room retains its original batten wainscoting and built-in cabinet. All the interior doors are original and primarily solid wood with five panels. The bathroom retains its original tub and tongue and groove wainscoting. The kitchen has not been altered and retains its walk-in pantry and cabinetry.

The garage at the rear of the property was constructed in 1968. It has a flat roof with narrow wood clapboards. There is a small tilt-up garage door on the south façade and a single entrance door on the north façade.

5.2.2 Thresholds of Significance

CEQA Guidelines § 15064.5 provides direction on determining significance of impacts to archaeological and historical resources. Generally, a resource shall be considered “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources:

- Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- Is associated the with lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history. (PRC § 5024.1; 14 CCR § 4852)

The fact that a resource is not listed in the California Register of Historical Resources, not determined to be eligible for listing, or not included in a local register of historical resources does not preclude a lead agency from determining that it may be a historical resource.

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According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- C-1 Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5.
- C-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5.
- C-3 Disturb any human remains, including those interred outside of dedicated cemeteries..

5.2.3 Plans, Programs, and Policies

- RR CUL-1 All construction activities will be conducted in accordance with § 7050.5 of the California Health and Safety Code regarding the potential discovery of human remains. In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the County Coroner has been contacted. If applicable, the Native American Heritage Commission will be responsible for designating the most likely descendant (MLD), as required by § 5097.98 of the California Public Resources Code. If the landowner rejects the recommendations of the MLD, the burial location would be determined in compliance with California Public Resources Code, § 5097.98.
- RR CUL-2 City of Riverside Code of Ordinances, Title 20, Cultural Resources. Chapter 20.50 of the City of Riverside Municipal Code provides definitions and outlines criteria for the designation of a resource as a Landmark or a Structure of Merit.

5.2.4 Environmental Impacts

5.2.4.1 METHODOLOGY

Field Survey Methods. A historic resource field survey was conducted on September 6, 2018, to document the residential properties. During the survey, multiple photographs were taken of the buildings (exterior and interior where accessible) to document the resources and their setting. The buildings' plans, architectural features, condition, and historical integrity were noted. A brief windshield survey of the Seventh Street East Historic District was conducted to evaluate other contributors and noncontributors in the district.

Archival Research. Since the properties were already evaluated as part of the Seventh Street East Historic District, a limited archival research was conducted, depending on the context developed when the district was established. Sanborn Fire Insurance maps of the parcels were located. To determine whether any owners or occupants of the properties were historically significant, primary and secondary sources such as building permits, newspapers, city directories, historic aerial photographs, and other archival sources were researched.

The properties were then evaluated for eligibility for listing in the NRHP, CRHR, City of Riverside Landmarks, and under CEQA.

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5.2.4.2 IMPACT ANALYSIS

The applicable thresholds are identified in brackets after the impact statement.

Impact 5.2-1: The project would cause a substantial adverse change in the significance of registered local historic resource. [Threshold C-1]

According to CEQA Guidelines § 15064.5, a project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.

Longfellow Elementary School

The majority of the school campus was constructed over a 59-year period (1948-2007) and consists of basic painted brick buildings with low-angle roofs. The southern half of the campus (2-story classroom building, turf play field and asphalt play ground) are within the City of Riverside Seventh Street East Historic District; but the north half is outside the historic district. The classroom building was constructed in 2005 and is not considered historic or a contributor to the Seventh Street East Historic District.

The project includes construction of 3 new buildings and a parking lot, modernization of five classroom buildings, new asphalt hardcourts and playground. The new buildings would be prefabricated modular buildings and would replace 12 portable buildings. The project would not result in the removal of any structures that could be considered a historical resource. Additionally, the project would not directly affect the architecture, design or structural integrity of any permanent school buildings. Longfellow Elementary School is not listed as a historic resource by the City of Riverside (Riverside, Historic Landmarks). There are no historic resources on the campus that are listed on the National Register of Historical Resources, the California Register of Historical Resources, or as a California State Historical Landmark (OHP 2018). The project would not result in a substantial adverse change in the significance of registered local historic resource on the school campus.

Acquisition Parcels

In evaluating the properties at 2210 and 2226 Seventh Street, several factors relevant to making a recommendation of eligibility were considered, including:

- History of Riverside.
- History of the buildings' construction, use, and associations.
- History of the surrounding community and the buildings' relationship to that community.
- The buildings' association with important people or events.
- Whether or not the buildings are the work of a master architect, craftsman, artist, or landscaper.
- Whether the buildings are representative of a particular style or method of construction.

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- Whether the buildings have undergone structural alterations over the years, the extent to which such alterations have compromised their historical integrity, and the current condition of the properties.

The proposed project includes acquisition of and the demolition of the two residential parcels adjacent to the east of Longfellow Elementary School and acquisition of the alley and the cul-de-sac.

National Register of Historic Places Evaluation

2210 Seventh Street

The property is one of many single-family residences constructed during the development of Riverside. While the property can be broadly associated with the context of community planning and development of Riverside, the property does not sufficiently represent this theme in itself. Therefore, it is not recommended eligible as an individual resource under NRHP Criterion A.

There is no evidence that any of the occupants of the property were historically significant. Although Eleazar Bentley Hayes had a distinguished career and appears important to local history in Michigan, his time in Riverside was brief and not particularly significant. Research into the other occupants revealed no one of local importance, and 2210 Seventh Street is recommended not eligible as an individual resource under NRHP Criterion B.

Although the property probably had characteristics of a Folk Victorian or early Craftsman style, little of these features remain today. The original siding has been covered with stucco, and any decorative elements that may have existed have been removed. The house at 2210 Seventh Street is not a good or outstanding representation of a particular architectural style. Additionally, no evidence was found that the property is associated with an architect or master builder. The house does not embody the distinctive characteristics of the style, period, region, or method of construction, nor does it appear to be the work of a master, and 2210 Seventh Street is recommended not eligible under NRHP Criterion C.

The property at 2210 Seventh Street is recommended not eligible under NRHP Criterion D because it is a common property type that does not have the potential to provide information about history or prehistory that is not available through historic research.

In conclusion, the residential property located at 2210 Seventh Street is recommended not individually eligible for the NRHP under any criteria.

2226 Seventh Street

The property is one of many single-family residences constructed during the development of Riverside. While the property can be broadly associated with the context of community planning and development of Riverside, the property does not sufficiently represent this theme as an individual resource, so it is not recommended eligible as an individual resource under NRHP Criterion A.

There is no evidence that any of the occupants of the property were historically significant. None appear to have had distinguished careers or have made significant contributions to society, nor were detailed obituaries

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located to provide further information about their lives beyond what is available from the title search, city directories, and Ancestry.com records, and 2226 Seventh Street is recommended not eligible as an individual resource under NRHP Criterion B.

The house is a good example of the Craftsman style, with character-defining features such as exposed rafter tails and extensive interior woodwork and built-ins intact. However, the design of the house is a common one, and similar examples are found throughout Riverside. As such, the house at 2226 Seventh Street is not an outstanding representation of the Craftsman style. Although Frederick Osborne was responsible for the construction of several homes in Riverside, no evidence was found to indicate that he was a master builder. The house does not embody the distinctive characteristics of the style, period, region, or method of construction, nor does it appear to be the work of a master. Therefore, 2226 Seventh Street is recommended not individually eligible under NRHP Criterion C.

The property at 2226 Seventh Street is recommended not eligible under NRHP Criterion D because it is a common property type that does not have the potential to provide information about history or prehistory that is not available through historic research.

In conclusion, the residential property located at 2226 Seventh Street is recommended not individually eligible for the NRHP under any criteria.

California Register of Historical Resources Evaluation

The properties are recommended not eligible for individual listing in the CRHR under criteria 1, 2, 3, and 4, following the reasons outlined in the preceding section regarding eligibility under the corresponding NRHP criteria A, B, C, and D.

City of Riverside Landmark/Structure of Merit Evaluation

The properties are recommended not eligible for landmark status under Municipal Code Chapter 20.50 criteria 1 through 8 for the reasons regarding eligibility outlined above. Additionally, the properties are recommended not eligible as structures of merit according to criteria 1 to 6 for the reasons outlined above and because neither is a rare resource that represents the neighborhood or development of Riverside.

Historic District Evaluation

2210 Seventh Street

Since the time of the initial evaluation of resources within the District, 2210 Seventh Street has undergone alterations that have impacted the integrity of the property. The clapboard has been covered with stucco, and any character-defining features have been lost. All of the original windows have been replaced by aluminum sliders. Because of the loss of integrity of materials as well as feeling and association, the house is not considered a contributor to the Seventh Street East Historic District.

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2226 Seventh Street

This 1910 house falls within the period of significance of the district (1880–1945) and continues to reflect the context of community development within the City of Riverside. The house is a good example of the Craftsman style, one of the styles for which the district is eligible and retains its integrity. Therefore, the house remains a contributor to the Seventh Street East Historic District.

California Environmental Quality Act Evaluation

The property at 2210 Seventh Street is not individually eligible for the NRHP, CRHR, or local registers and is not a contributor to the Seventh Street East Historic District; therefore, it does not qualify as a historical resource under the terms of CEQA.

Because Seventh Street East Historic District is a historical resource under CEQA and the 2226 Seventh Street property is a contributor to the District, the property is also a historical resource under CEQA.

Conclusion

CEQA Guidelines § 15064.5(b)(1) defines a substantial adverse change as one that would materially impair the significance of an historical resource. According to § 15064.5(2)(C), “the significance of a historic resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.”

The Seventh Street East Historic District is a historical resource for the purposes of CEQA, and 2226 Seventh Street is a contributing resource. The project would result in demolition of a contributing resource to a historical resource. Therefore, the proposed project would result in a significant impact to a historic resource.

The Riverside Cultural Heritage Board addressed the future of both properties in Resolution #7B, adopted on February 15, 1989, when the Seventh Street East Historic District was originally designated. At that time it was resolved that

...the Cultural Heritage Board will require that, if the long-term plans of the Riverside Unified School District to acquire two houses at 2210 and 2226 Seventh Street are realized, the removal of said houses will be allowed on condition that said houses are either, first, offered to parties interested in relocating them to, and restoring them in, other older neighborhoods or, second, opened for the salvage and sale of architectural features by a non-profit agency approved by the Cultural Heritage Board.

Mitigation Measure CUL-1 requires compliance with the relocation option of Resolution #7B.

Level of Significance Before Mitigation: Significant.

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Impact 5.2-2: The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. [Threshold C-2]

Archaeological resources are cultural resources of prehistoric or historic origin that reflect human activity. Archaeological resources include both structural ruins and buried resource (buildings, structures, objects, and sites of the built environment). The term “unique archaeological resources” is defined in PRC § 21083.2(g) as:

- ... ‘unique archaeological resources’ means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
- (1) Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
 - (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
 - (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

The project site is in an area of unknown archaeological sensitivity and unknown prehistoric cultural resources sensitivity (Riverside 2007). Soil on the campus has been significantly disturbed by multiple construction projects over the past 129 years. Additionally, the Riverside Public Utilities has been providing water and power services to the City of Riverside since their founding in 1895. There are seven water lines within a 1,500-foot radius of the site, including a 36-inch transmission main that bisects the school (former Seventh Street alignment). Archaeological deposits are unlikely to be present in the project area due to the infrastructure built in the late 19th and early 20th century. Due to the disturbed nature of the project site, it appears highly unlikely that any subsurface archaeological resources would be discovered or disturbed. Project-related excavations are not expected to extend substantially deeper than excavations for previous construction. Therefore, project-related earthwork on the school campus is not anticipated to encounter buried archaeological resources. Archaeological impacts would be less than significant.

Level of Significance: Less than Significant.

Impact 5.2-3: The project is not anticipated to disturb any human remains. [Threshold C-3]

Due to the disturbed nature of the project site, it is unlikely that any human remains would be discovered. In the unlikely event that human remains are uncovered during project demolition, grading, or excavation, Government Code §§ 27460 et seq. mandate that there shall be no further excavation or disturbance until the Riverside County Coroner has determined that the remains are not subject to the provisions of § 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner, and cause of death; and the required recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in § 5097.98 of the PRC.

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Pursuant to California Health and Safety Code § 7050.5, the coroner shall make his or her determination within two working days of notification of the discovery of the human remains. If the coroner determines that the remains are not subject to his or her authority and recognizes or has reason to believe that they are those of a Native American, he or she shall contact the Native American Heritage Commission by telephone within 24 hours. Compliance with existing regulations would ensure that impacts to human remains would be less than significant.

Level of Significance: Less than Significant.

5.2.5 Cumulative Impacts

“A cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts” (14 CCR § 15130). A project would have a cumulatively considerable impact on cultural resources if it contributes to the cumulative loss of historical resources.

Historic Resources. Seventh Street East Historic District represents one of Riverside’s earliest planned residential developments. The district includes 70 properties, 54 of which are contributors, including several city landmark and structure of merit properties. Although neither property qualifies for landmark status or structures of merit under Municipal Code Chapter 20.50, the 2226 Seventh Street property is 1 of only 54 contributors to the Seventh Street East Historic District. These contributing properties are increasingly threatened with demolition, and the loss of the 2226 Seventh Street property would incrementally contribute to the cumulative loss of these remaining historical resources. The demolition of the house at 2226 Seventh Street would be cumulatively considerable and its loss would constitute an adverse and significant cumulative impact.

Archaeological Resources. Other projects in the City of Riverside would alter or remove structures and would involve ground disturbances. Thus, other projects located in areas of high to moderate sensitivity for archaeological resources would require mitigation measures to reduce impacts. Cumulative impacts would be less than significant, and project impacts to archaeological resources would not be cumulatively considerable.

Level of Significance Before Mitigation: Significant for Historic Resources.

5.2.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, Impact 5.2-2 would be less than significant.

Without mitigation, the following impacts would be **potentially significant**:

- Impact 5.2-1: The demolition of the house at 2226 Seventh Street would result in an adverse impact to historic resource.
- Cumulative impacts: The proposed project would contribute in cumulative loss to the Seventh Street East Historic District.

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5.2.7 Mitigation Measure

CUL-1 To reduce impacts to the Seventh Street East Historic District from demolition of the 2226 Seventh Street property, the Riverside Unified School District shall implement tasks A and B. If Measure B is implemented but cannot be completed, then Riverside Unified School District shall implement Measure C. Finally, as a last resort, Measure D shall be implemented. The Riverside Cultural Heritage Board shall remain apprised of each step in this process.

Measure A. Recordation

1. The RUSD shall retain a qualified professional to document the 2226 Seventh Street property. The professional shall meet the following qualifications: a) Architectural Historian and/or Historian meeting the Secretary of the Interior's Professional Qualifications Standards, b) demonstrated experience in creating HABS Level II documentation, c) recommended by the Riverside Cultural Heritage Board.
2. The qualified professional shall prepare a HABS-like Level II document in accordance with the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation. Information on the Standards and Guidelines is available at the following links: http://www.nps.gov/history/local-law/arch_stnds_6.htm and <http://www.nps.gov/history/hdp/standards/index.htm>. The documentation shall include, but not be limited to, the following.
 - a. Photographs with large-format black-and-white negatives (4 inches by 5 inches or larger) of the property as a whole shall be provided; photocopies with large format negatives of select existing drawings, site plans, or historic views where available. A minimum of 12 views showing context and relationship of historical resources to each other shall be provided; aerial views showing the whole property shall also be provided. These shall be produced by a photographer with experience preparing large-format photography to the HABS standard.
 - b. Written historical descriptive data, index to photographs, and photo key plan shall be provided. Because, there is no known architectural plans a not-to-scale sketch of the floor plan shall be prepared and included as an attachment to the history.
3. The above items (collectively considered the Documentation Package) shall be prepared prior to any demolition or relocation work.
4. Four copies of the documentation package shall be created and shall be distributed to four of the following repositories for use by future researchers and educators. Before submitting any documents, each of the following repositories shall be contacted to ensure that they are willing and able to accept the items: City of Riverside Public Library; Riverside Cultural Heritage Board; Riverside County Public Library; and City of Riverside

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Planning Department and the Historic Preservation, Neighborhoods and Urban Design Team.

Measure B. Third Party Sale Within District

1. Riverside Unified School District shall offer the house at 2226 Seventh Street public for sale and offsite relocation consistent with 1989 Resolution #7B and within the boundaries of the Seventh Street East Historic District.
2. The historical resource shall be advertised by the RUSD at a minimum in the following locations: RUSD website (if applicable); City of Riverside website; *Press-Enterprise Telegram* website and print editions. This advertisement may run concurrent with Measure C-1, but shall specifically state the preference for Measure B.
3. The bidding period shall remain open for 60 days after the date of advertisement to allow adequate response time from interested parties. The offer shall provide 90 days in which to effect relocation of the house within the boundaries of the Seventh Street East Historic District. The receiving party shall be responsible for all costs related to relocation and renovation.
4. Qualified parties shall meet the following minimum qualifications to be considered a realistic buyer: possess adequate financial resources to relocate and rehabilitate the historical resource; possess an available location for the historical resource; and provide for a use for the historical resource.
5. The Riverside Cultural Heritage Board shall approve the qualified buyer. If no such buyer comes forward within the allotted time frame, the RUSD can elect to demolish the historical resource, only after compliance with all other requirements outlined in Mitigation Measure CUL-1.

Measure C. Third Party Sale Outside District

1. The historic resource shall be advertised by the RUSD at a minimum in the following locations: RUSD website (if applicable); City of Riverside website; *Press-Enterprise Telegram* website and print editions.
2. The bidding period shall remain open for 60 days after the date of advertisement to allow adequate response time from interested parties. The offer shall provide 90 days in which to effect relocation of the house outside the boundaries of the Seventh Street East Historic District. The receiving party shall be responsible for all costs related to relocation and renovation.
3. Qualified parties shall meet the following minimum qualifications to be considered a realistic buyer: possess adequate financial resources to relocate and rehabilitate the

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historical resource; possess an available location for the historical resource; and provide for a use for the historical resource.

4. The Riverside Cultural Heritage Board shall approve the qualified buyer. If no such buyer comes forward within the allotted time frame, the RUSD can elect to demolish the historical resource, only after compliance with all other requirements outlined in Mitigation Measure CUL-1.

Measure D. Salvage and Reuse

1. If offsite relocation of the historical resource by a third party is not accomplished, the RUSD shall retain a professional to prepare a salvage and reuse plan that identifies elements and materials of the resource (house) that can be saved prior to any demolition work.
 - a. The salvage and reuse plan shall be included in bid documents prepared for the site and shall be created by a architectural historian or historic preservation professional meeting the Secretary of the Interior's Professional Qualifications Standards with demonstrated experience in creating salvage and reuse plans.
 - b. Elements and materials that may be salvageable include windows; doors; roof tiles; decorative elements; bricks, foundation materials, and/or paving materials; framing members; furniture; lighting; and flooring materials, such as tiles and hardwood.
2. The RUSD shall contact groups interested in receiving the salvaged items. The following steps shall be taken by the RUSD
 - a. Identification of the individuals, organizations, or businesses interested in receiving the salvaged items shall be completed in consultation with the Riverside Cultural Heritage Board and shall only include those approved by the Board.
 - b. Identification of the those interested in receiving the salvaged items shall be accomplished by direct contact.
 - c. If none of the contacted parties are able to receive the items, items to be salvaged shall be advertised in the *Press-Enterprise Telegram* for a maximum of 60 days.
3. The RUSD shall remove salvageable items in the gentlest, least destructive manner possible. Historic materials and features shall be protected by storing salvaged items in indoor, climate- and weather-controlled conditions until recipients can retrieve them. The removal of salvageable items shall be performed by a licensed contractor with demonstrated experience with implementing salvage and reuse plans for historic buildings.

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5.2.8 Level of Significance After Mitigation

Implementation of Mitigation Measure CUL-1 would reduce impacts to historical resources. If RUSD has met the requirements of Mitigation Measure CUL-1 Measure A - Recordation and Measure B - Third Party Sale Within District the house would retain its historic significance and historic resource impacts would be less than significant.

However, if RUSD has met the requirements of Mitigation Measure CUL-1 Measure A - Recordation and determines that Measure B cannot be completed, then relocation of the house outside the historic district (Measure C) or demolition (Measure D) is implemented a significant impact to historical resources would occur.

In compliance with Measure A and B, if the house can be relocated consistent with 1989 Resolution #7B, the historic resource impact would be less than significant; otherwise, impacts would be significant and unavoidable. Because at this time there is no guarantee that the District can implement Measure B, the required finding for Impact 5.2-1 and cumulative impacts are *significant and unavoidable*.

5.2.9 References

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5.3 GREENHOUSE GAS EMISSIONS

This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential for implementation of the Longfellow Elementary School Expansion project to cumulatively contribute to greenhouse gas (GHG) emissions impacts. Because no single project is large enough to result in a measurable increase in global concentrations of GHG, climate change impacts are considered on a cumulative basis. This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (SCAQMD). GHG emissions modeling was conducted using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2, and model outputs are in Appendix B of this Draft EIR.

Terminology

The following are definitions for terms used throughout this section.

- **Greenhouse gases (GHG).** Gases in the atmosphere that absorb infrared light, thereby retaining heat in the atmosphere and contributing to a greenhouse effect.
- **Global warming potential (GWP).** Metric used to describe how much heat a molecule of a greenhouse gas absorbs relative to a molecule of carbon dioxide (CO₂) over a given period of time (20, 100, and 500 years). CO₂ has a GWP of 1.
- **Carbon dioxide-equivalent (CO₂e).** The standard unit to measure the amount of greenhouse gases in terms of the amount of CO₂ that would cause the same amount of warming. CO₂e is based on the GWP ratios between the various GHGs relative to CO₂.
- **MTCO₂e.** Metric ton of CO₂e.
- **MMTCO₂e.** Million metric tons of CO₂e.

Greenhouse Gases and Climate Change Background

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO₂), methane (CH₄), and ozone (O₃)—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent are nitrous oxide (N₂O), sulfur hexafluoride (SF₆),

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hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).^{1,2} The major GHGs applicable to the proposed project are briefly described.

- **Carbon dioxide (CO₂)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH₄)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in landfills and water treatment facilities.
- **Nitrous oxide (N₂O)** is emitted during agricultural and industrial activities as well as during the combustion of fossil fuels and solid waste.

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have a stronger greenhouse effect than others. These are referred to as high GWP gases. The GWP of GHG emissions are shown in Table 5.3-1. The GWP is used to convert GHGs to CO₂-equivalence to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Fourth Assessment Report (AR4), GWP values for CH₄, 10 MT of CH₄ would be equivalent to 250 MT of CO₂.

Table 5.3-1 GHG Emissions and Their Relative Global Warming Potential Compared to CO₂

GHGs	Second Assessment Report Global Warming Potential Relative to CO ₂ ¹	Fourth Assessment Report Global Warming Potential Relative to CO ₂ ¹	Fifth Assessment Report Global Warming Potential Relative to CO ₂ ¹
Carbon Dioxide (CO ₂)	1	1	1
Methane ² (CH ₄)	21	25	28
Nitrous Oxide (N ₂ O)	310	298	265

Source: IPCC 1995, 2007, 2014.

Notes: GWP values identified in AR4 are used by SCAQMD to maintain consistency in statewide GHG emissions modeling.

¹ Based on 100-year time horizon of the GWP of the air pollutant compared to CO₂.

² The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO₂ is not included.

¹ Water vapor (H₂O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant because it is considered part of the feedback loop rather than a primary cause of change.

² Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2017a). However, state and national GHG inventories do not include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

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California's GHG Sources and Relative Contribution

In 2018, the statewide GHG emissions inventory was updated for 2000 to 2016 emissions using the GWPs in IPCC's AR4.³ Based on these GWPs, California produced 429.4 MMTCO₂e GHG emissions in 2016. California's transportation sector was the single largest generator of GHG emissions, producing 40.5 percent of the state's total emissions. Industrial sector emissions made up 23.4 percent, and electric power generation made up 16.1 percent. Other major sectors of GHG emissions include commercial and residential (12.0 percent), agriculture and forestry (7.9 percent) and others (solvents and chemicals) at 0.2 percent (CARB 2018b).

California's GHG emissions have followed a declining trend since 2007. In 2016, emissions from routine GHG-emitting activities statewide were 429 MMTCO₂e, 12 MMTCO₂e lower than 2015 levels. This represents an overall decrease of 13 percent since peak levels in 2004 and 2 MMTCO₂e below the 1990 level and the state's 2020 GHG target. During the 2000 to 2016 period, per capita GHG emissions in California have continued to drop from a peak in 2001 of 14.0 MTCO₂e per capita to 10.8 MTCO₂e per capita in 2016, a 23 percent decrease. Overall trends in the inventory also demonstrate that the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross domestic product) is declining, representing a 38 percent decline since the 2001 peak, while the state's gross domestic product has grown 41 percent during this period (CARB 2018c).

Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHGs in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and the quantity of climate change pollutants in the Earth's atmosphere that is attributable to human activities. The amount of CO₂ in the atmosphere has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million per year since 1960, mainly due to combustion of fossil fuels and deforestation (IPCC 2007). These recent changes in the quantity and concentration of climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants (CAT 2006). In the past, gradual changes in the earth's temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime (IPCC 2007).

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are hard to predict. Projections of climate change depend heavily upon future human activity. Therefore, climate models are based on different emission scenarios that account for historical trends in emissions and on observations of the climate record that assess the human

³ Methodology for determining the statewide GHG inventory is not the same as the methodology used to determine statewide GHG emissions under Assembly Bill 32 (2006).

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influence of the trend and projections for extreme weather events. Climate-change scenarios are affected by varying degrees of uncertainty—for example, on the magnitude of the trends for:

- Warmer and fewer cold days and nights over most land areas.
- Warmer and more frequent hot days and nights over most land areas.
- An increase in frequency of warm spells/heat waves over most land areas.
- An increase in frequency of heavy precipitation events (or proportion of total rainfall from heavy falls) over most areas.
- Larger areas affected by drought.
- Intense tropical cyclone activity increases.
- Increased incidence of extreme high sea level (excluding tsunamis).

Potential Climate Change Impacts for California

Observed changes over the last several decades across the western United States reveal clear signs of climate change. Statewide, average temperatures increased by about 1.7°F from 1895 to 2011, and warming has been greatest in the Sierra Nevada (CCCC 2012). The years from 2014 through 2016 showed unprecedented temperatures, with 2014 being the warmest (OEHHHA 2018). By 2050, California is projected to warm by approximately 2.7°F above 2000 averages, a threefold increase in the rate of warming over the last century. By 2100, average temperatures could increase by 4.1 to 8.6°F, depending on emissions levels (CCCC 2012).

In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring temperatures; 2) a smaller fraction of precipitation falling as snow; 3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones; 4) advanced shift in the timing of snowmelt of 5 to 30 days earlier in the spring; and 5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms (CAT 2006). Overall, California has become drier over time, with five years out of eight classified as severe to extreme drought between 2007 and 2016, and unprecedented dry years in 2014 and 2015 (OEHHHA 2018.) According to the California Climate Action Team—a committee of state agency secretaries and the heads of agencies, boards, and departments, led by the Secretary of the California Environmental Protection Agency—even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 5.3-1), and the inertia of the Earth's climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks to California are shown in Table 5.3-2.

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Table 5.3-2 Summary of GHG Emissions Risks to California

Impact Category	Potential Risk
Public Health Impacts	Heat waves will be more frequent, hotter, and longer Fewer extremely cold nights Poor air quality made worse Higher temperatures increase ground-level ozone levels
Water Resources Impacts	Decreasing Sierra Nevada snow pack Challenges in securing adequate water supply Potential reduction in hydropower Loss of winter recreation
Agricultural Impacts	Increasing temperature Increasing threats from pests and pathogens Expanded ranges of agricultural weeds Declining productivity Irregular blooms and harvests
Coastal Sea Level Impacts	Accelerated sea level rise Increasing coastal floods Shrinking beaches Worsened impacts on infrastructure
Forest and Biological Resource Impacts	Increased risk and severity of wildfires Lengthening of the wildfire season Movement of forest areas Conversion of forest to grassland Declining forest productivity Increasing threats from pest and pathogens Shifting vegetation and species distribution Altered timing of migration and mating habits Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction in hydropower Increased energy demand
Sources: CEC 2006; CEC 2009; CCCC 2012; CNRA 2014.	

- **Wildfire Risks.** Earlier snowmelt, higher temperatures, and longer dry periods over a longer fire season will directly increase wildfire risk. Indirectly, wildfire risk will also be influenced by potential climate-related changes in vegetation and ignition potential from lightning. Human activities will continue to be the biggest factor in ignition risk. The number of large fires statewide is estimated to increase by 58 percent to 128 percent above historical levels by 2085. Under the same emissions scenario, estimated burned area will increase by 57 percent to 169 percent, depending on location (CCST 2012).
- **Health Impacts.** Many of the gravest threats to public health in California stem from the increase of extreme conditions, principally more frequent, more intense, and longer heat waves. Particular concern centers on the increasing tendency for multiple hot days in succession, and simultaneous heat waves in several regions throughout the state. Public health could also be affected by climate change impacts on air quality, food production, the amount and quality of water supplies, energy pricing and availability, and the

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spread of infectious diseases. Higher temperatures also increase ground-level ozone levels. Furthermore, wildfires can increase particulate air pollution in the major air basins of California (CCST 2012).

- **Increase Energy Demand.** Increases in average temperature and higher frequency of extreme heat events combined with new residential development across the state will drive up the demand for cooling in the increasingly hot and longer summer season and decrease demand for heating in the cooler season. Warmer, drier summers also increase system losses at natural gas plants (reduced efficiency in the electricity generation process at higher temperatures) and hydropower plants (lower reservoir levels). Transmission of electricity will also be affected by climate change. Transmission lines lose 7 percent to 8 percent of transmitting capacity in high temperatures while needing to transport greater loads. This means that more electricity needs to be produced to make up for the loss in capacity and the growing demand (CCST 2012).

5.3.1 Environmental Setting

5.3.1.1 REGULATORY FRAMEWORK

Federal

The US Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 US Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings did not themselves impose any emission reduction requirements, but allowed the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (USEPA 2009).

To regulate GHGs from passenger vehicles, EPA was required to issue an endangerment finding. The finding identifies emissions of six key GHGs—CO₂, CH₄, N₂O, hydrofluorocarbons, perfluorocarbons, and SF₆—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the proposed project's GHG emissions inventory because they constitute the majority of GHG emissions; per SCAQMD guidance, they are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

US Mandatory Reporting Rule for GHGs (2009)

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 or more MTCO₂e per year are required to submit an annual report.

Update to Corporate Average Fuel Economy Standards (2010/2012)

The current Corporate Average Fuel Economy standards (for model years 2011 to 2016) incorporate stricter fuel economy requirements promulgated by the federal government and California into one uniform standard. Additionally, automakers were required to cut GHG emissions in new vehicles by roughly 25 percent by 2016 (resulting in a fleet average of 35.5 miles per gallon by 2016). Rulemaking to adopt these new standards was completed in 2010. California agreed to allow automakers who show compliance with the national program to

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also be deemed in compliance with state requirements. The federal government issued new standards in 2012 for model years 2017 to 2025 that will require a fleet average of 54.5 miles per gallon in 2025. However, the EPA is reexamining the 2017–2025 emissions standards.

EPA Regulation of Stationary Sources under the Clean Air Act (Ongoing)

Pursuant to its authority under the Clean Air Act, the EPA has been developing regulations for new, large, stationary sources of emissions, such as power plants and refineries. Under former President Obama’s 2013 Climate Action Plan, the EPA was directed to develop regulations for existing stationary sources as well. However, the EPA is reviewing the Clean Power Plan under President Trump’s Energy Independence Executive Order.

State

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Orders S-03-05 and B-30-15, Assembly Bill (AB) 32, Senate Bill (SB) 32, and SB 375.

Executive Order S-03-05

Executive Order S-03-05, signed June 1, 2005, set the following GHG reduction targets for the state:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

Assembly Bill 32, the Global Warming Solutions Act (2006)

State of California guidance and targets for reductions in GHG emissions are generally embodied in the Global Warming Solutions Act, adopted with passage of AB 32. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 emissions reduction goal established in Executive Order S-03-05.

CARB 2008 Scoping Plan

The first Scoping Plan was adopted by the California Air Resources Board (CARB) on December 11, 2008. The 2008 Scoping Plan identified that GHG emissions in California are anticipated to be 596 MMTCO_{2e} in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 MMTCO_{2e} (471 million tons) for the state (CARB 2008). To effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 MTTCO_{2e} per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.

First Update to the Scoping Plan

CARB completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The First Update to the Scoping Plan, adopted May 22, 2014, highlights California’s progress toward meeting the near-term 2020 GHG

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emission reduction goals defined in the 2008 Scoping Plan. As part of the update, CARB recalculated the 1990 GHG emission levels with the updated AR4 GWPs, and the 427 MMTCO_{2e} 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, are slightly higher at 431 MMTCO_{2e} (CARB 2014).

As identified in the Update to the Scoping Plan, California is on track to meet the goals of AB 32. The update also addresses the state's longer-term GHG goals in a post-2020 element. The post-2020 element provides a high-level view of a long-term strategy for meeting the 2050 GHG goal, including a recommendation for the state to adopt a midterm target. According to the Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with or exceeds the trajectory created by statewide goals (CARB 2014). CARB identified that reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit (CARB 2014).

Executive Order B-30-15

Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions in the state to 40 percent below 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaption strategy, Safeguarding California, in order to ensure climate change is accounted for in state planning and investment decisions.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed Senate Bill 32 and Assembly Bill 197, making the Executive Order goal for year 2030 into a statewide, mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direct emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

2017 Climate Change Scoping Plan

Executive Order B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On December 24, 2017, CARB approved the 2017 Climate Change Scoping Plan Update, which outlines potential regulations and programs, including strategies consistent with AB 197 requirements, to achieve the 2030 target. The 2017 Scoping Plan establishes a new emissions limit of 260 MMTCO_{2e} for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030 (CARB 2017b).

California's climate strategy will require contributions from all sectors of the economy, including enhanced focus on zero- and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conserve agricultural and other lands.

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Requirements for GHG reductions at stationary sources complement local air pollution control efforts by the local air districts to tighten criteria air pollutant and TAC emissions limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZE buses and trucks;
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewables Portfolios Standard (RPS) to 50 percent and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency and utilizes near-zero emissions technology and deployment of ZE trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- Continued implementation of SB 375.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

In addition to the statewide strategies listed above, the 2017 Climate Change Scoping Plan also identified local governments as essential partners in achieving the state's long-term GHG reduction goals and recommended local actions to reduce GHG emissions—for example, statewide targets of no more than 6 MTCO₂e or less per capita by 2030 and 2 MTCO₂e or less per capita by 2050. CARB recommends that local governments evaluate and adopt robust and quantitative locally appropriate goals that align with the statewide per capita targets and sustainable development objectives, and develop plans to achieve the local goals. The statewide per capita goals were developed by applying the percent reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40 percent and 80 percent, respectively) to the state's 1990 emissions limit established under AB 32. For CEQA projects, CARB states that lead agencies have discretion to develop evidenced-based numeric thresholds (mass emissions, per capita, or per service population) consistent with the Scoping Plan and the state's long-term GHG goals. To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from vehicle miles traveled (VMT), and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits. Where further project design or regional investments are infeasible or not proven to be effective, CARB recommends mitigating potential GHG impacts through purchasing and retiring carbon credits.

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The Scoping Plan scenario is set against what is called the “business as usual” yardstick—that is, what would the GHG emissions look like if the state did nothing at all beyond the policies that are already required and in place to achieve the 2020 limit, as shown in Table 5.3-3. It includes the existing renewables requirements, advanced clean cars, the “10 percent” LCFS, and the SB 375 program for more vibrant communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years. Also shown in the table, the known commitments are expected to result in emissions that are 60 MMTCO₂e above the target in 2030. If the estimated GHG reductions from the known commitments are not realized due to delays in implementation or technology deployment, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved.

Table 5.3-3 2017 Climate Change Scoping Plan Emissions Reductions Gap

Modeling Scenario	2030 GHG Emissions MMTCO ₂ e
Reference Scenario (Business-as-Usual)	389
With Known Commitments	320
2030 GHG Target	260
Gap to 2030 Target	60

Source: CARB 2017b.

Table 5.3-4 provides GHG emissions by sector for 1990, the range of GHG emissions for each sector estimated for 2030, and the percent change compared to 1990 levels.

Table 5.3-4 2017 Climate Change Scoping Plan Emissions Change by Sector

Scoping Plan Sector	1990 MMTCO ₂ e	2030 Proposed Plan Ranges MMTCO ₂ e	% Change from 1990
Agricultural	26	24 to 25	-8% to -4%
Residential and Commercial	44	38 to 40	-14% to -9%
Electric Power	108	30 to 53	-72% to -51%
High GWP	3	8 to 11	267% to 367%
Industrial	98	83 to 90	-15% to -8%
Recycling and Waste	7	8 to 9	14% to 29%
Transportation (including TCU)	152	103 to 111	-32% to -27%
Net Sink ¹	-7	TBD	TBD
Sub Total	431	294 to 339	-32% to -21%
Cap-and-Trade Program	NA	34 to 79	NA
Total	431	260	-40%

Source: CARB 2017b.

Notes: TCU = Transportation, Communications, and Utilities; TBD = To Be Determined.

¹ Work is underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.

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Senate Bill 375

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target.

SCAG's 2016-2040 RTP/SCS

SB 375 requires the MPOs to prepare a sustainable communities strategy in their regional transportation plan. For the SCAG region, the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted on April 7, 2016, and is an update to the 2012 RTP/SCS (SCAG 2016). In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce VMT from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

SCAG's targets for the 2016-2040 RTP/SCS were 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). The 2016-2040 RTP/SCS projects that the SCAG region will meet or exceed the passenger per capita targets set in 2010 by CARB. It is projected that VMT per capita in the region for year 2040 would be reduced by 7.4 percent with implementation of the 2016-2040 RTP/SCS compared to a no-plan year 2040 scenario. Under the 2016-2040 RTP/SCS, SCAG anticipates lowering GHG emissions 8 percent below 2005 levels by 2020, 18 percent by 2035, and 21 percent by 2040. The 18 percent reduction by 2035 over 2005 levels represents a 2 percent increase in reduction compared to the 2012 RTP/SCS projection. Overall, the SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets. Land use strategies to achieve the region's targets include planning for new growth around high quality transit areas and livable corridors, and creating neighborhood mobility areas to integrate land use and transportation and plan for more active lifestyles (SCAG 2016). However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency.

2017 Update to the SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. CARB adopted revised SB 375 targets for the MPOs in March 2018. The updated targets become effective on October 1, 2018, and are therefore applicable for the 2019 RTP/SCS update being initiated by SCAG. CARB's updated SB 375 targets for the SCAG region are an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010

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target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent) (CARB 2018a).

The targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update (for SB 32), while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks relative to 2005; this excludes reductions anticipated from implementation of state technology and fuels strategies, and any potential future state strategies, such as statewide road user pricing. The proposed targets call for greater per-capita GHG emission reductions from SB 375 than are currently in place, which for 2035 translate into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCS to achieve the SB 375 targets. CARB foresees that the additional GHG emissions reductions in 2035 may be achieved from land use changes, transportation investment, and technology strategies (CARB 2018a).

Transportation Sector Specific Regulations

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles (see also the discussion on the update to the Corporate Average Fuel Economy standards under *Federal Laws*, above). In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases with requirements for greater numbers of ZE vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025 new automobiles will emit 34 percent less global warming gases and 75 percent less smog-forming emissions (CARB 2011).

Executive Order S-01-07

On January 18, 2007, the state set a new LCFS for transportation fuels sold in the state. Executive Order S-01-07 sets a declining standard for GHG emissions measured in CO₂e gram per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of transportation fuels, and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

Executive Order B-16-2012

On March 23, 2012, the state identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and

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the California Fuel Cell Partnership to establish benchmarks to accommodate ZE vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directed the number of ZE vehicles in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are ZE by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions 80 percent below 1990 levels.

Renewables Portfolio: Carbon Neutrality Regulations

Senate Bills 1078, 107, X1-2, and Executive Order S-14-08

A major component of California's Renewable Energy Program is the renewables portfolio standard established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08, signed in November 2008, expanded the state's renewable energy standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects, because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350

Senate Bill 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, which raises California's RPS requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill establishes a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18

Executive Order B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions should be offset by equivalent net removals of CO_{2e} from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

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Energy Efficiency Regulations

California Building Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2016 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Building Energy Efficiency Standards, which were adopted on May 9, 2018, go into effect starting January 1, 2020. The 2019 standards move toward cutting energy use in new homes by more than 50 percent and will require installation of solar photovoltaic systems for single-family homes and multifamily buildings of three stories and less. The 2019 standards focus on four key areas: 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements (CEC 2018a). Under the 2019 standards, nonresidential buildings will be 30 percent more energy efficient compared to the 2016 standards, and single-family homes will be 7 percent more energy efficient (CEC 2018b). When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy compared to homes built to the 2016 standards (CEC 2018b).

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.⁴ The CEC adopted the voluntary standards of the 2019 CALGreen on October 3, 2018. The 2019 CALGreen standards become effective January 1, 2020.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. Though these regulations are now often viewed as “business as usual,” they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

Solid Waste Diversion Regulations

AB 939: Integrated Waste Management Act of 1989

California's Integrated Waste Management Act of 1989 (AB 939, Public Resources Code §§ 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills

⁴ The green building standards became mandatory in the 2010 edition of the code.

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by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses. Section 5.408 of CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

AB 1327

The California Solid Waste Reuse and Recycling Access Act (AB 1327, Public Resources Code §§ 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

AB 1826

In October of 2014, Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings with five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed with food waste.

Water Efficiency Regulations

SBX7-7

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed “SBX7-7.” SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 requires urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

AB 1881: Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or an equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including

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irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Short-Lived Climate Pollutant Reduction Strategy

Senate Bill 1383

On September 19, 2016, the governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH₄. Black carbon is the light-absorbing component of fine particulate matter produced during incomplete combustion of fuels. SB 1383 required the state board, no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also established targets for reducing organic waste in landfills. On March 14, 2017, CARB adopted the Short-Lived Climate Pollutant Reduction Strategy, which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use (CARB 2017a). In-use on-road rules are expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020. SCAQMD is one of the air districts that requires air pollution control technologies for chain-driven broilers, which reduces their particulate emissions by over 80 percent (CARB 2017a). Additionally, SCAQMD Rule 445 limits installation of new fireplaces in the South Coast Air Basin.

5.3.2 Plans, Programs, and Policies

5.3.2.1 REGULATORY REQUIREMENTS

- | | |
|----------|--|
| RR GHG-1 | New buildings are required to achieve the current California Building Energy and Efficiency Standards (Title 24, Part 6) and California Green Building Standards Code (CALGreen) (Title 24, Part 11). The 2016 Building and Energy Efficiency Standards were effective on January 1, 2017. The 2019 Building and Energy Efficiency Standards will become effective on January 1, 2020. The Building Energy and Efficiency Standards and CALGreen are updated tri-annually with a goal to achieve zero net energy for residential buildings by 2020 and nonresidential buildings by 2030. |
| RR GHG-2 | Construction activities are required to adhere to California Code of Regulations, Title 13, Section 2499, which restricts nonessential idling of construction equipment to five minutes or less. |
| RR GHG-3 | New buildings are required to adhere to the California Green Building Standards Code and Water Efficient Landscape Ordinance requirements to increase water efficiency and reduce urban per capita water demand. |

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- RR GHG-3 CARB's Renewable Portfolio Standard (RPS) is a foundational element of the state's emissions reduction plan. These mandates apply directly to investor-owned utilities, which in the case of the proposed project is Southern California Edison. The RPS targets are 50 percent renewable resources target by December 31, 2026, and 60 percent target by December 31, 2030. SB 100 also requires that retail sellers and local, publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024; 52 percent by December 31, 2027; and 60 percent by December 31, 2030.
- RR GHG-4 The Low Carbon Fuel Standard for transportation fuels requires that California's transportation fuels reduce their carbon intensity by at least 10 percent by 2020.
- RR GHG-5 The 2007 Energy Bill creates new federal requirements for increases in fleetwide fuel economy for passenger vehicles and light trucks under the Federal Corporate Average Fuel Economy Standards. The federal legislation requires a fleetwide average of 35 miles per gallon to be achieved by 2020. The National Highway Traffic Safety Administration is directed to phase in requirements to achieve this goal. Analysis by CARB suggests that this will require an annual improvement of approximately 3.4 percent between 2008 and 2020.
- RR GHG-6 Assembly Bill 1493 (Pavley) required CARB to develop and adopt regulations designed to reduce greenhouse gases emitted by passenger vehicles and light-duty trucks beginning with the 2009 model year. The standards set within the Pavley regulations reduced GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016.
- RR GHG-7 California's Green Building Standards Code (CALGreen) requires the recycling and/or salvaging for reuse at minimum of 65 percent of the nonhazardous construction and demolition waste generated during most "new construction" projects (CALGreen §§ 4.408 and 5.408). Construction contractors are required to submit a construction waste management plan that identifies the construction and demolition waste materials to be diverted from disposal by recycling, reuse on the project, or salvaged for future use or sale and the amount (by weight or volume).

5.3.3 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- GHG-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

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South Coast Air Quality Management District

SCAQMD has adopted a significance threshold of 10,000 MTCO₂e per year for permitted (stationary) sources of GHG emissions for which SCAQMD is the designated lead agency. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting (Meeting No. 15) in September 2010, SCAQMD identified a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency (SCAQMD 2010a). This following tiered approach has not been formally adopted by SCAQMD.

- **Tier 1.** If a project is exempt from CEQA, project-level and contribution to significant cumulative GHG emissions are less than significant.
- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (e.g., city or county), project-level and contribution to significant cumulative GHG emissions are less than significant.
- **Tier 3.** If GHG emissions are less than the screening-level criterion, project-level and contribution to significant cumulative GHG emissions are less than significant.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. Project-related GHG emissions include on-road transportation, energy use, water use, wastewater generation, solid waste disposal, area sources, off-road emissions, and construction activities. The SCAQMD Working Group identified that because construction activities would result in a "one-time" net increase in GHG emissions, construction activities should be amortized into the operational phase GHG emissions inventory based on the service life of a building. For buildings in general, it is reasonable to look at a 30-year time frame, since this is a typical interval before a new building requires the first major renovation. SCAQMD identified a screening-level threshold of 3,000 MTCO₂e annually for all land use types or the following land-use-specific thresholds: 1,400 MTCO₂e for commercial projects, 3,500 MTCO₂e for residential projects, and 3,000 MTCO₂e for mixed-use projects. These bright-line screening-level criteria are based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds. Therefore, projects that do not exceed the bright-line threshold would have a nominal, and therefore less than cumulatively considerable, impact on GHG emissions. SCAQMD recommends use of the 3,000 MTCO₂e interim bright-line screening-level criterion for all project types (SCAQMD 2010b).

- **Tier 4.** If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.

SCAQMD identified an efficiency target for projects that exceed the bright-line threshold: a 2020 efficiency target of 4.8 MTCO₂e per year per service population (MTCO₂e/year/SP) for project-level analyses and 6.6 MTCO₂e/year/SP for plan-level projects (e.g., general plans). Service population is generally defined as the sum of residential and employment population of a project. The per capita efficiency targets are

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based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.⁵

Post-2020 GHG Emissions Thresholds

For purposes of this analysis, because it has not developed its own numeric GHG significance threshold, the City of Riverside utilizes the SCAQMD's bright-line screening-level criterion of 3,000 MTCO₂e per year as the significance threshold for this project. If the project's operation-phase emissions exceed the bright-line screening-level criterion, GHG emissions would be considered potentially significant in the absence of mitigation measures.

5.3.4 Environmental Impacts

5.3.4.1 METHODOLOGY

This GHG emissions evaluation was prepared in accordance with the requirements of CEQA to determine if significant GHG emissions impacts are likely in conjunction with the type and scale of development associated with the proposed project. GHG emissions modeling was completed for the project using the California Emissions Estimator Model (CalEEMod) recommended by the SCAQMD. Life cycle emissions are not included in the GHG analysis consistent with California Resources Agency directives.⁶ Black carbon emissions are not included in the GHG analysis because CARB does not include this pollutant in the state's AB 32/SB 32 inventory and treats this short-lived climate pollutant separately.⁷

Operation Phase

The operational-phase, project-related emissions are based on development of the new educational facilities and modernizations to existing facilities. The modeling accounts for emissions from area sources (e.g., landscaping equipment), energy usage (i.e., natural gas and electricity), water demand, and wastewater and solid waste generation from operation of the proposed project. GHG emissions modeling was completed for the project using the California Emissions Estimator Model (CalEEMod) recommended by the SCAQMD. Air quality modeling is based on the following:

⁵ SCAQMD took the 2020 statewide GHG reduction target for "land use only" GHG emissions sectors and divided it by the 2020 statewide employment for the land use sectors to derive a per capita GHG efficiency metric that coincides with the GHG reduction targets of AB 32 for year 2020.

⁶ Life cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions found that lifecycle analysis was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction of the proposed project is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials is also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted (OPR 2008).

⁷ Particulate matter emissions, which include black carbon, are analyzed under *Air Quality*. Black carbon emissions have sharply declined due to efforts to reduce on-road and off-road vehicle emissions, especially diesel particulate matter. The State's existing air quality policies will virtually eliminate black carbon emissions from on-road diesel engines within 10 years (CARB 2017a).

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- **Energy Use.** The proposed buildings would be built to meet the 2019 Building Energy Efficiency Standards. Under the 2019 standards, nonresidential buildings will be 30 percent more energy efficient compared to the 2016 standards (CEC 2018b).
- **Water/Wastewater.** Water use and wastewater generation associated with the proposed project is based CalEEMod default generation rates for an elementary school.
- **Solid Waste.** Solid waste generation associated with the proposed project is based on CalEEMod default generation rates for an elementary school.
- **Area Sources.** Area sources are based on the CalEEMod defaults for emissions generated from the use of landscape fuels, consumer products, and cleaning supplies associated with the new classroom buildings.
- **Transportation.** The proposed project would not result in an increase in students; and therefore, mobile source emissions are not modeled for the proposed project.

Construction Phase

Construction of the proposed project would commence in summer 2020 and take approximately 12 months. See Table 5.1-8 in Chapter 5.1, *Air Quality*, for further details regarding the specific construction activities, durations, and construction equipment mix. Construction emissions associated with the proposed project are amortized based on a 30-year building lifetime, in accordance with SCAQMD methodology (SCAQMD 2009).

5.3.4.2 IMPACT ANALYSIS

The applicable thresholds are identified in brackets after the impact statement.

Impact 5.3-1: The project would not generate a net increase in GHG emissions, either directly or indirectly, that would have a significant impact on the environment. [Threshold GHG-1]

Implementation of a development project could contribute to global climate change through direct emissions of GHGs from onsite area sources, and indirectly through offsite energy production required for onsite activities, water use, and waste disposal. Because no single project is large enough to result in a measurable increase in global concentrations of GHGs, global warming impacts of a project are considered on a cumulative basis.

The increase in GHG emissions that would result from project implementation is shown in Table 5.3-5. Annual GHG emissions were calculated for construction and operation of the proposed project. Construction emissions were amortized based on a 30-year lifetime and included in the project's operational phase emissions. As shown in the table, the proposed project would result in GHG emissions that would not exceed the SCAQMD bright-line threshold of 3,000 MTCO_{2e}/yr. Therefore, the project would not cumulatively contribute to statewide GHG emissions.

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Table 5.3-5 Project-Related GHG Emissions

Source	MTCO ₂ e per Year	Percent of Project Total
Area	<1	<1%
Energy ¹	60	70%
Solid Waste	9	9%
Water/Wastewater	9	9%
Construction 30-Year Amortization ²	12	12%
Total Emissions	92	100%
SCAQMD Bright Line Threshold	3,000 MTCO ₂ e	NA
Exceeds SCAQMD Bright Line Threshold	No	NA

Sources: CalEEMod Version 2016.3.2.

Note: Totals may not total to 100 percent due to rounding. NA: not applicable.

¹ Proposed buildings would be constructed post-January 1, 2020 and would meet the 2019 California Building Energy Efficiency Standards.

² Construction emissions/sequestration are amortized over a 30-year period.

Level of Significance: Less Than Significant.

Impact 5.3-2: Implementation of the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. [Threshold GHG-2]

Applicable plans adopted for the purpose of reducing GHG emissions include CARB's Scoping Plan and SCAG's 2016-2040 RTP/SCS. A consistency analysis with these plans for the proposed project is presented below.

CARB Scoping Plan

The CARB Scoping Plan is applicable to state agencies, but is not directly applicable to cities/counties and individual projects (i.e., the Scoping Plan does not require the City to adopt policies, programs, or regulations to reduce GHG emissions). However, new regulations adopted by the state agencies outlined in the Scoping Plan result in GHG emissions reductions at the local level. As a result, local jurisdictions benefit from reductions in transportation emissions rates, increases in energy and water efficiency in the building and landscape codes, and other statewide actions that affect a local jurisdiction's emissions inventory from the top down. Statewide strategies to reduce GHG emissions also include the LCFS and changes in the corporate average fuel economy standards (e.g., Pavley I and Pavley California Advanced Clean Cars program). Although measures in the Scoping Plan apply to state agencies and not the proposed project, the project's GHG emissions would be reduced by compliance with statewide measures that have been adopted since AB 32 and SB 32 were adopted. For example, where applicable, the proposed structures would be built to meet the latest Building Energy Efficiency Standards and CALGreen standards in effect at the time in which the building permits are requested. Compliance with these statewide building and design standards would contribute in reducing energy demand and water consumption. Therefore, the proposed project would be consistent with the CARB Scoping Plan, and impacts are considered less than significant.

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SCAG's Regional Transportation Plan/Sustainable Communities Strategy

SCAG's 2016-2040 RTP/SCS was adopted April 7, 2016. SCAG's RTP/SCS identifies that land use strategies that focus on new housing and job growth in areas served by high quality transit and other opportunity areas would be consistent with a land use development pattern that supports and complements the proposed transportation network. The overarching strategy in the 2016-2040 RTP/SCS is to plan for the southern California region to grow in more compact communities in existing urban areas; provide neighborhoods with efficient and plentiful public transit and abundant and safe opportunities to walk, bike, and pursue other forms of active transportation; and preserve more of the region's remaining natural lands (SCAG 2016). The 2016-2040 RTP/SCS contains transportation projects to help more efficiently distribute population, housing, and employment growth, as well as a forecast development that is generally consistent with jurisdictional general plan data. The projected regional development pattern, when integrated with the proposed regional transportation network identified in the 2016-2040 RTP/SCS, would reduce per capita vehicular travel-related GHG emissions and achieve the GHG reduction per capita targets for the SCAG region. The 2016-2040 RTP/SCS does not require that local general plans, specific plans, or zoning be consistent with the 2016-2040 RTP/SCS, but offers incentives for consistency to governments and developers.

The proposed project would provide for the educational needs of the community while meeting the existing demand for school services. Therefore, the proposed project would not interfere with SCAG's ability to implement the regional strategies outlined in the RTP/SCS, and impacts are considered less than significant.

Level of Significance: Less Than Significant.

5.3.5 Cumulative Impacts

Project-related GHG emissions are not confined to a particular air basin, but are dispersed worldwide. Therefore, impacts under Impact 5.7-1 are not project-specific impacts to global warming, but the proposed project's contribution to this cumulative impact. As discussed under Impact 5.3-1, implementation of the project would not exceed SCAQMD's bright-line threshold. Therefore, project-related GHG emissions and their contribution to global climate change would not be cumulatively considerable, and GHG emissions impacts would not be significant.

Level of Significance: Less Than Significant.

5.3.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the following impacts would be less than significant: 5.3-1 and 5.3-2.

5.3.7 Mitigation Measures

No mitigation measures are required.

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5.3.8 Level of Significance After Mitigation

Impacts would be less than significant.

5.3.9 References

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5.4 NOISE

This section of the Draft Environmental Impact Report (Draft EIR) evaluates the potential for the Longfellow Elementary School Expansion to impact the noise environment in the local vicinity. This section summarizes relevant federal, state, and local noise guidelines, policies, and standards; reviews noise levels at existing receptor locations; and evaluates potential noise impacts associated with the Longfellow Elementary School project. This evaluation uses procedures and methodologies specified by the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). The analysis in this section is based in part on the noise modeling data included in Appendix F of this Draft EIR.

Noise and Vibration Fundamentals

Noise is defined as unwanted sound and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as “noisiness” or “loudness.” Based on these known adverse effects of noise, the federal government, the State of California, and many local governments have established criteria to protect public health and safety and to prevent disruption of certain human activities.

The following are brief definitions of terminology used in this chapter.

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A unitless measure of sound on a logarithmic scale.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent Continuous Noise Level (L_{eq}); also called the Energy-Equivalent Noise Level.** The value of an equivalent, steady sound level which, in a stated time period (often over an hour) and at a stated location, has the same A-weighted sound energy as the time-varying sound. Thus, the L_{eq} metric is a single numerical value that represents the equivalent amount of variable sound energy received by a receptor over the specified duration.
- **Statistical Sound Level (L_n).** The sound level that is exceeded “n” percent of time during a given sample period. For example, the L_{50} level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the “median sound level.” The L_{10} level, likewise, is the value that is exceeded 10 percent of the time (i.e.,

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near the maximum) and this is often known as the “intrusive sound level.” The L_{90} is the sound level exceeded 90 percent of the time and is often considered the “effective background level” or “residual noise level.”

- **Day-Night Sound Level (L_{dn} or DNL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 PM to 7:00 AM.
- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added from 7:00 pm to 10:00 pm and 10 dB from 10:00 pm to 7:00 am. For general community/environmental noise, CNEL and L_{dn} values rarely differ by more than 1 dB (with the CNEL being only slightly more restrictive, that is, higher than the L_{dn} value). As a matter of practice, L_{dn} and CNEL values are interchangeable and are treated as equivalent in this assessment.
- **Peak Particle Velocity (PPV).** The peak signal value of an oscillating vibration velocity waveform usually expressed in inches per second (in/sec).
- **Sensitive Receptor.** Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment and public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

Sound Fundamentals

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in Hertz [Hz] or cycles per second), and duration (measured in seconds or minutes). The standard unit of measurement of the loudness of sound is the decibel (dB). Changes of 1 to 3 dB are detectable under quiet, controlled conditions and changes of less than 1 dBA are usually indiscernible. A 3 dB change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dB is readily discernable to most people in an exterior environment whereas a 10 dBA change is perceived as a doubling (or halving) of the sound.

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all and are “felt” more as a vibration. Similarly, while people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz. Since the human ear is not equally sensitive to sound at all frequencies, a special frequency dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise is defined as unwanted sound, and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Based on these known adverse effects of noise, the federal government, the State of California, and many local governments have established criteria to protect public health and safety and to prevent disruption of certain human activities.

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Sound Measurement

Sound intensity is measured through the A-weighted measure to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies.

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. On a logarithmic scale, an increase of 10 dB is 10 times more intense than 1 dB, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud).

Sound levels are generated from a source and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. This phenomenon is known as "spreading loss." For a single point source, sound levels decrease by approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by on-site operations from stationary equipment or activity at a project site. If noise is produced by a line source, such as highway traffic, the sound decreases by 3 dB for each doubling of distance in a hard site environment. Line source noise in a relatively flat environment with absorptive vegetation decreases by 4.5 dB for each doubling of distance.

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called L_{eq}), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time. Half the time the noise level exceeds this level and half the time the noise level is less than this level. This level is also representative of the level that is exceeded 30 minutes in an hour. Similarly, the L_2 , L_8 and L_{25} values represent the noise levels that are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour. These "L" values are typically used to demonstrate compliance for stationary noise sources with a city's noise ordinance, as discussed below. Other values typically noted during a noise survey are the L_{min} and L_{max} . These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (L_{dn}). The CNEL descriptor requires that an artificial increment of 5 dBA be added to the actual noise level for the hours from 7:00 p.m. to 10:00 p.m. and 10 dBA for the hours from 10:00 p.m. to 7:00 a.m. The L_{dn} descriptor uses the same methodology except that there is no artificial increment added to the hours between 7:00 p.m. and 10:00 p.m. Both descriptors give roughly the same 24-hour level with the CNEL being only slightly more restrictive (i.e., higher).

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Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA could result in permanent hearing damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 190 dBA will rupture the eardrum and permanently damage the inner ear.

Vibration Fundamentals

Vibration is an oscillatory motion through a solid medium, such as the ground or a building. Vibration is normally associated with activities stemming from operations of railroads or vibration-intensive stationary sources, but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers.

Amplitude

Vibration amplitudes are usually described in terms of either the peak particle velocity or the root mean square (RMS) velocity. PPV is the maximum instantaneous peak of the vibration signal, and RMS is the square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage. The units for PPV are normally inches per second (in/sec). Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration.

The way in which vibration is transmitted through the earth is called propagation. As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level striking a given point is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

As with airborne sound, annoyance with vibrational energy is a subjective measure, depending on the level of activity and the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Persons accustomed to elevated ambient vibration levels, such as in an urban environment, may tolerate higher vibration levels. Table 5.4-1 shows the human response and the effects on buildings resulting from continuous vibration (in terms of various levels of PPV).

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Table 5.4-1 Human Reaction to Typical Vibration Levels

Vibration Level Peak Particle Velocity	Human Reaction	Effect on Buildings
0.006–0.019 in/sec	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08 in/sec	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10 in/sec	Level at which continuous vibration begins to annoy people	Virtually no risk of “architectural” (i.e., not structural) damage to normal buildings
0.20 in/sec	Vibrations annoying to people in buildings	Threshold at which there is a risk to “architectural” damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6 in/sec	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage

Source: Caltrans 2013.

5.4.1 Environmental Setting

5.4.1.1 REGULATORY FRAMEWORK

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise.

State

California Code of Regulations

Title 24, Part 11. The California Green Building Standards Code (CALGreen) has requirements for insulation that affect exterior-interior noise transmission for non-residential structures. Pursuant to CALGreen Section 5.507.4.1, Exterior Noise Transmission, an architectural acoustics study may be required when a project site is within a 65 dBA CNEL or L_{dn} noise contour of an airport, freeway or expressway, railroad, industrial source or fixed-guideway source. Where noise contours are not readily available, if buildings are exposed to a noise level of 65 dBA L_{eq} during any hour of operation, specific wall and ceiling assembly and sound-rated windows may be necessary to reduce interior noise to acceptable levels. A performance method may also be used per Section 5.507.4.2 to show compliance with State interior noise requirements.

Title 5, Section 14040(q). Under Title 5, the California Department of Education (CDE) regulations require the school district to consider noise in the site selection process. As recommended by CDE guidance, if a school district is considering a potential school site near a freeway or other source of noise, it should hire an acoustical engineer to determine the level of sound that the site is exposed to and to assist in designing the school should that site be chosen.

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Local

City of Riverside General Plan

Principal noise sources in the City of Riverside are from transportation, specifically from major arterial roadways, SR-91, SR-60, I-215, train movement along railroad lines, and aircraft overflight noise from Riverside Municipal Airport, Flabob Airport, and March Air Reserve Base.

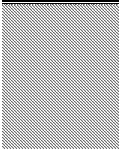
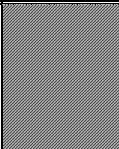
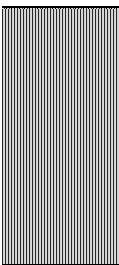

The City of Riverside's General Plan Noise Element has set forth land use guidelines to protect residential neighborhoods and noise-sensitive receptors such as schools and hospitals from potentially harmful noise sources. The noise and land use compatibility criteria are shown in Table 5.4-2.

Table 5.4-2 Noise and Land Use Compatibility Criteria – Riverside General Plan

Land Uses	CNEL (dBA)						
	55	60	65	70	75	80	85
Single Family Residential							
Infill Single Family Residential							
Commercial – Motels, Hotels, Transient Lodging							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Amphitheaters, Concert Hall, Auditorium, Meeting Hall							
Sports Arena, Outdoor Spectator Sports							
Playground, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Businesses, Commercial, Professional							
Industrial, Manufacturing, Utilities, Agricultural							
Freeway Adjacent Commercial, Office, and Industrial Uses							

5. Environmental Analysis NOISE

Table 5.4-2 Noise and Land Use Compatibility Criteria – Riverside General Plan

Land Uses				CNEL (dBA)						
				55	60	65	70	75	80	85
Explanatory Notes										
	Normally Acceptable: Specific land use is satisfactory, based on the assumption that any building is of normal conventional construction without any special noise insulation requirements.				Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does not proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.					
	Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of noise reduction requirement is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.				Conditionally Unacceptable: New construction or development should generally not be undertaken, unless it can be demonstrated that noise reduction requirements can be employed to reduce noise impacts to an acceptable level if new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.					
Source: State Department of Health, as modified by the City of Riverside. *For properties located within airport influence areas, acceptable noise limits for single family residential uses are established by the Riverside County Airport Land Use Compatibility Plan.										

City of Riverside Municipal Code

Where the intruding noise source is an air-conditioning unit or refrigeration system that was installed prior to the effective date of this chapter, the exterior noise level when measured at the property line shall not exceed 60 dBA for units installed before January 1, 1980, and 55 dBA for units installed after January 1, 1980. Exterior noise standards are summarized in Table 5.4-3.

Table 5.4-3 Exterior Noise Standards

Land Use Category	Time Period	Noise Level in dBA
Residential	Night: 10:00 p.m. to 7:00 a.m.	45
	Day: 7:00 a.m. to 10:00 p.m.	55
Office/Commercial	Any time	65
Industrial	Any time	70
Community support	Any time	60
Public recreation facility	Any time	65
Nonurban	Any time	70

Source: City of Riverside, Code of Ordinance, Title 7, Noise Control.

Note: If the measured ambient noise level exceeds that permissible within any of the first four noise limit categories, the allowable noise exposure standard shall be increased in five decibel increments in each category as appropriate to encompass the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

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The City of Riverside has noise regulations enforced through its code of ordinances. The code provides decibel corrections that shall not exceed the following:

- The exterior noise standard of the applicable land use category, up to 5 decibels, for a cumulative period of more than 30 minutes in any hour (L_{50}).
- The exterior noise standard of the applicable land use category, plus 5 decibels, for a cumulative period of more than 15 minutes in any hour (L_{25}).
- The exterior noise standard of the applicable land use category, plus 10 decibels, for a cumulative period of more than five minutes in any hour (L_8).
- The exterior noise standard of the applicable land use category, plus 15 decibels, for the cumulative period of more than one minute in any hour (L_2).
- The exterior noise standard for the applicable land use category, plus 20 decibels or the maximum measured ambient noise level (L_{max}), for any period of time.

Construction Noise

Per Section 7.35.010 of the municipal code, it is unlawful for any person to make, continue, or cause to be made or continued any disturbing, excessive or offensive noise which causes discomfort or annoyance to reasonable persons of normal sensitivity, including conducting construction activities between the hours of 7:00 pm and 7:00 am on weekdays and between 5:00 pm and 8:00 am on Saturdays, or at any time on Sunday or federal holidays.

Exemptions

Sounds from authorized school bands, school athletic and school entertainment events conducted between the hours of 7:00 am and 10:00 pm are exempt from the provisions of the Municipal Code per Section 7.35.020.

Vibration Standards

The City of Riverside does not have specific limits or thresholds for vibration. The United States Department of Transportation Federal Transit Administration provides criteria for acceptable levels of ground-borne vibration for various types of buildings. The FTA criteria are used for this analysis. Structures amplify groundborne vibration and wood-frame buildings, such as typical residential structures, are more affected by ground vibration than heavier buildings. The level at which groundborne vibration is strong enough to cause architectural damage has not been determined conclusively. The most conservative estimates are reflected in the FTA standards shown in Table 5.4-4.

5. Environmental Analysis NOISE

Table 5.4-4 Groundborne Vibration Criteria: Architectural Damage

Building Structural Category	PPV, in/sec
I. Reinforced-concrete steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Engineered concrete and masonry (no plaster)	0.2
IV. Engineered concrete and masonry (no plaster)	0.12

Source: Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment Manual. September.

PPV = peak particle velocity

5.4.1.2 EXISTING CONDITIONS

The project is in a predominately residential area in the City of Riverside. The existing noise environment is influenced by roadway traffic from Eucalyptus Avenue, Sixth Street, Franklin Avenue, Seventh Street, and University Avenue. University Avenue is a four-lane arterial roadway passing through one-half block south of the project site. Existing operational noise is primarily characterized by school activity, such as children playing, school bells, and any other before-, during-, and after-school activities.

Another noise source is the BNSF railroad that services commuter and freight trains approximately 0.4 mile northwest of the school. According to the City of Riverside 2025 General Plan Noise Element, the project site and immediate vicinity are within 60 and 65 dBA CNEL noise contours, which places the school in the Normally Acceptable and Conditionally Acceptable land use compatibility categories.

Sensitive Receptors

Onsite sensitive receptors are students and staff in the existing classroom buildings. Offsite sensitive receptors are the surrounding residential uses, mostly single-family homes, across Eucalyptus Avenue, Sixth Street, and Franklin Avenue.

5.4.2 Plans, Programs, and Policies

5.4.2.1 REGULATORY REQUIREMENTS

This analysis assumes compliance with all applicable laws and regulations. The following codes, rules, and regulations pertain to noise and were described in detail in Sections 5.4.1.2 of this Draft EIR.

- RR N-1 Stationary noise will comply with the Riverside Municipal Code, Section 7.25.010 – Exterior Sound Level Limits for residential land uses:
- 45 dBA 10:00 pm to 7:00 am
 - 55 dBA 7:00 am to 10:00 pm
- RR N-2 Construction-related activities will comply with Riverside Municipal Code, Section 7.35.010, General Noise Regulations, Part B, 5-Construction.

5. Environmental Analysis

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5.4.3 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would result in:

- N-1 Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- N-2 Generation of excessive groundborne vibration or groundborne noise levels.
- N-3 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

Construction Noise

The City does not have established noise limits for temporary construction activities. The FTA recommends a noise level limit of 90 dBA L_{eq} for residential receptors. The FTA noise threshold is used in this analysis to assess construction noise impacts that occur in the daytime hours when people are less sensitive to noise.

Transportation Noise

A project will normally have a significant effect on the environment related to noise if it will substantially increase the ambient noise levels for adjoining areas. Most people can detect changes in sound levels of approximately 3 dBA under normal, quiet conditions, and changes of 1 to 3 dBA are detectable under quiet, controlled conditions. Changes of less than 1 dBA are usually indiscernible. A change of 5 dBA is readily discernible to most people in an exterior environment. Based on this, traffic noise impacts are considered significant if sensitive receptor locations experience 3 dBA or more noise increases with implementation of the project.

Stationary Noise

The City's noise ordinance establishes noise level standards for air-conditioning units of 55 dBA at receiving residential property lines for units installed after January 1, 1980.

Vibration

Per the FTA criteria, the threshold for architectural damage to buildings with reinforced concrete, steel, or timber (i.e., concrete industrial buildings) is 0.5 in/sec PPV, and to buildings with nonengineered timber and masonry (i.e., residential buildings) is 0.2 in/sec PPV.

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5.4.4 Environmental Impacts

5.4.4.1 METHODOLOGY

Construction Noise. To calculate construction noise as it affects sensitive receptors, the FHWA RCNM calculation methodology was used. The RCNM includes reference noise levels for numerous equipment pieces.

Traffic Noise. Construction noise modeling was conducted using the FHWA Roadway Construction Noise Model.

Vibration. The FTA's general assessment procedure has procedures to identify areas of potential impacts with potential exposure to high levels of groundborne vibration. The procedures are discussed in detail in Chapters 9 and 10 of the FTA's Transit Noise and Vibration Impact Assessment (FTA 2018).

5.4.4.1 IMPACT ANALYSIS

The applicable thresholds are identified in brackets after the impact statement.

Impact 5.3-1: Construction activities would result in a temporary increase in noise. [Threshold N-1]

Construction activities are anticipated to last for approximately 12 months and entail several phases—building and asphalt demolition and haul, site preparation, grading, utility trenching, building construction, building modernization, paving, and architectural coating. Two types of short-term noise could occur during construction: (1) mobile-source noise from transport of workers, material deliveries, and debris and soil haul, and (2) stationary-source noise from use of construction equipment.

Construction Vehicles

The transport of workers and materials to and from the construction site would incrementally increase noise levels along Franklin Avenue and Eucalyptus Avenue. Individual construction vehicle pass-bys may generate momentary noise levels of up to approximately 85 dBA L_{max} at 50 feet from the vehicle, but these occurrences would generally be infrequent and short lived.

Construction activities would generate trips by workers and vendors. The number of trips would vary by construction phase. The demolition and hauling of portable buildings are anticipated to generate the most daily trips—45 worker and 16 vendor trips for a total of 61 daily trips during an approximately 20-day period.¹ Haul trips, separate from worker and vendor trips, are estimated as a total over the period of the construction phase and averaged into daily trips. The maximum haul trips would occur during demolition of portable buildings (85 haul trips over a 10-day period; average of 9 haul trips per day). However, throughout construction, the size of the work crew at the school each day would vary depending on the construction phase and type of activity.

¹ Worker and vendor trips based on California Emissions Estimator Model (CalEEMod), version 2016.3.2.

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Average daily traffic counts provided by the City of Riverside show the nearest roadway segments to the school are University Avenue from Kansas Avenue to Chicago Avenue (26,900 ADT) and Eucalyptus Avenue from University Avenue to Mission Inn Avenue (5,302 ADT) (Riverside 2017). The addition of worker/vendor trips and haul trips would result in a noise increase of 0.1 dBA CNEL or less on these two streets. Additionally, compared to the existing traffic generated at the school (1,400 average daily trips²) the number of worker trips would be negligible. Maximum truck trips would be for a short duration and would be spread out throughout the workday and would occur during non-peak traffic periods

Therefore, noise impacts from construction-related truck traffic would be less than significant at noise-sensitive receptors along the construction routes.

Construction Equipment

Noise generated during construction is based on the type of equipment used, the location of the equipment relative to sensitive receptors, and the timing and duration of the noise-generating activities. Each phase of construction involves the use of different kinds of construction equipment and therefore has its own distinct noise characteristics. Noise levels from construction activities are dominated by the loudest piece of construction equipment. The dominant noise source is typically the engine, although work noise (such as dropping of materials) may also be noticeable. Noise levels from project-related construction activities were calculated from the simultaneous use of all applicable construction equipment at spatially averaged distances (i.e., from the center of the general construction site) to the property line of the closest sensitive receptors. Although construction may occur across the entire site, the center of the site best represents the potential average construction-related noise levels at sensitive receptors during the overall construction phase.

Each phase of construction has a different equipment mix, depending on the work to be accomplished. The noise generated is determined by combining the Leq contributions from each piece of equipment used at a given time. Construction activities would not require blasting or pile driving. Demolition and grading typically generates the highest noise levels because they require the largest pieces of equipment. Construction noise can exhibit a high degree of variability because factors such as noise attenuation due to distance, the number and type of equipment, and the load and power requirements to accomplish tasks at each construction phase result in different noise levels at a given sensitive receptor.

Construction equipment typically moves around the site and has variable power levels. Noise from construction equipment decreases by approximately 6 dB with each doubling of distance from the source. For example, the noise levels from a bulldozer that generates 85 dBA at 50 feet would attenuate to 79 dBA at 100 feet, 73 dBA at 200 feet, 67 dBA at 400 feet, and 61 dBA at 800 feet. Also, noise levels are reduced by the amount of use as well as barrier effects provided by buildings. Construction work would be intermittent and conducted in stages over 12 months; some work would be done during school breaks when students are off campus.

² Based on the ITE Trip Generation Manual 9th edition. Public school daily trip rates for elementary school at 1.89 daily trips per student x 741 students = 1,400 average daily trips.

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To calculate construction noise as it affects sensitive receptors, the FHWA RCNM calculation methodology was used. The RCNM includes reference noise levels for numerous equipment pieces. Since the RCNM calculations do not account for shielding due to intervening buildings and structures, ground effects, or air absorption, the results of these calculations are conservative (that is, they represent a “worst case” scenario). Using information provided by the project applicant and methodologies and inputs employed in the air quality assessment, the expected construction equipment mix was estimated and categorized by construction activity. The associated, aggregate sound levels—grouped by construction activity—are summarized in Table 5.4-5.

Table 5.4-5 Project-Related Construction Noise Levels

Construction Activity Phase	Sound Level at Various Distances from Construction Activities, dBA L _{eq}	
	Off-Site Single-Family - East (220 ft.)	On-Site Building C (60 ft.)
Demolition	73 dBA	84
Portable Building Haul	60 dBA	71
Site Preparation	72 dBA	83
Grading	72 dBA	83
Utility Trenching	69 dBA	80
Building Construction	71 dBA	82
Paving	73 dBA	84
Architectural Coating	61 dBA	72

Source: FHWA's RCNM software. Distance measurements were taken using Google Earth (2019) from the acoustical center of the project site.
dBA L_{eq} = Energy-Average (Leq) Sound Levels.

On-Site Receptors

The nearest on-campus building is approximately 60 feet from the acoustical center of the site. At that distance exterior noise levels could reach up to 84 dBA Leq. With typical 25 dB exterior-to-interior noise reduction, interior noise levels could reach up to 69 dBA Leq. Additionally, similar to other school district projects, the construction contractor would consult and coordinate with the school principal or school administrator prior to construction to schedule high-noise-producing activities to minimize classroom disruption. The school administrators can also use temporary student relocation. In extreme otherwise unmitigable cases, students would be moved to temporary classrooms/facilities away from the construction activity.

Off-Site Receptors

The project site is surrounded by residential uses. The nearest residence is approximately 220 feet east from the acoustical center of the project site. As shown in Table 5.4-5, average noise levels during construction could reach 73 dBA L_{eq}, at the nearest receptor and would not exceed the FTA criterion of 90 dBA L_{eq}. There would be short periods when equipment would be near the construction area boundary and closer to the residences and may exceed 84 dBA. Likewise, there would be short periods when equipment would be farther from the residences and noise levels would be much lower than the values in Table 5.4-5. These instances

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would be sporadic and intermittent. Additionally, construction activity noise in some areas would be attenuated by school buildings between the construction zone and residents.

According to Municipal Code Section 7.35.010 construction would not take place between the hours of 7:00 pm and 7:00 am on weekdays and between 5:00 pm and 8:00 am on Saturdays, or at any time on Sunday or federal holidays. District contractors would work within the City's designated construction hours. Construction noise would result in a less than significant impact.

Level of Significance: Less Than Significant.

Impact 5.3-2	Project-related long-term operational noise would not exceed local standards.
	[Threshold N-1]

The project could introduce new stationary noise source through the proposed new buildings. No new traffic trips related to the project would be introduced, as the number of students and staff are not proposed to increase.

Stationary-Source Noise

Stationary noise sources include school buzzers or bells, landscaping equipment, outdoor activities, and heating, ventilation and air conditioning (HVAC) systems. Since the project would not increase student capacity and the campus would retain the same footprint, these stationary sources would be similar to the current conditions.

Although the project would result in the installation of new HVAC systems on new buildings, they would replace older units that would be removed with the demolition of older portable buildings. Overall, 12 small HVAC units would be removed and 3 larger units installed. Newer units are quieter than old units, so noise would not result in notable changes on or off campus.

There are six portable buildings that would be removed and replaced with asphalt hard courts. This may increase student recreational noise at some residential properties along Franklin Avenue. Although the revised layout of these outdoor activities may incrementally increase noise levels at nearby receptors, noise from daytime school-related sporting and entertainment are exempt pursuant to the Municipal Code § 7.35.020. Stationary-source noise would result in a less than significant.

Traffic Noise

The overall project would not result in an increase in students or staff. As part of the project, a new parking lot and drop-off/pick-up area would be constructed along Franklin Avenue. This new student drop-off/pick-up area would redirect some of the existing Eucalyptus and Franklin curbside AM and PM activity to the new lot. Although some drivers would choose to use the new location, some would continue to use existing areas. Traffic noise would not substantially increase in the vicinity of the school.

Level of Significance: Less Than Significant.

5. Environmental Analysis NOISE

Impact 5.3-3: The project would not create excessive groundborne vibration and groundborne noise. [Threshold N-2]

Potential vibration impacts associated with development projects are usually related to the use of heavy construction equipment.

Operational Vibration

Typically, land uses that result in vibration impacts are industrial businesses that use heavy machinery, or operation of large trucks over uneven surfaces. The project involves improvements to an existing school and a new parking lot. There would be no significant vibration-generating activities during ongoing operations. Therefore, no operational vibration impacts would occur.

Construction Vibration

Construction operations can generate varying degrees of ground vibration, depending on the construction procedures and equipment. Operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. The effect on buildings in the vicinity of the construction site varies depending on soil type, ground strata, and receptor-building construction. The effects from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches the levels that can damage structures.

Damage from vibrational energy is typically a one-time event and is most likely to occur when the source and receptor are very close. The threshold for the assessment of risk of architectural damage is 0.2 inches per second peak particle velocity (in/sec PPV) for nonengineered timber and masonry buildings (which would apply to the school and surrounding structures) (FTA 2018). Vibration levels exceed 0.2 PPV in/sec if a vibratory roller is operated within approximately 25 feet of the receiving structure, or when large bulldozers or loaded trucks are operated at distances closer than 15 feet.

At a distance of 25 feet or greater, construction-generated vibration levels would be less than the 0.2 in/sec PPV vibration damage criterion. The nearest structures are residential homes to the east at 60 feet; at that distance, vibration levels would be about 0.056 PPV in/sec, as shown in Table 5.4-6. Therefore, architectural damage is not anticipated to occur. Impacts would be less than significant.

Table 5.4-6 Typical Construction Equipment Vibration Levels

Equipment	PPV (in/sec) at 25 Feet	PPV (in/sec) at 60 Feet
Vibratory Roller	0.210	0.056
Large Bulldozer/Hoe Ram	0.089	0.024
Loaded Trucks	0.076	0.020
Jackhammer	0.035	0.009
Small Bulldozer	0.003	0.001

Source: Federal Transit Administration, 2018. Transit Noise and Vibration Impact Assessment, September.
PPV – peak particle velocity measured in inches/second

5. Environmental Analysis

NOISE

Groundborne Noise

Construction-related groundborne noise occurs mainly from the powered mechanical equipment for rock breaking/drilling works (such as hydraulic breaker, rock drill, pile driving rig, etc.) and tunnel boring machine.

Operation-related groundborne noise occurs when trains operate in tunnels that are close to occupied structures. Vibrations associated with train pass-bys can be transmitted through the ground and structure and be radiated as noise in the occupied spaces within the structure. The transmitted noise through structures may have potential impact on the noise sensitive receivers.

The project does not include activities or equipment that would generate substantial construction or operational groundborne noise. No impacts would occur.

Level of Significance: No Impact.

Impact 5.4-4: The school is not in the proximity of a private airstrip or an airport. [Threshold N-3]

Major airports or private airstrips in the city of Riverside are the Flabob Airport, approximately 3 miles west of the school; Riverside Municipal Airport, approximately 5 miles southwest; and March Air Reserve Base, approximately 7.5 miles southeast. Airports and airstrips would not result in exposure of students and staff to airport-related noise. No impacts would occur.

Level of Significance: No Impact.

5.4.5 Cumulative Impacts

There are no nearby planned and approved projects that would result in a cumulative construction noise at the same time as the proposed project. The project would not result in an increase of staff or students; therefore, no new trips will be generated, and the project would not contribute to a cumulative traffic noise impact. In consideration of the preceding factors, the project's contribution to cumulative noise impacts would be less than significant, and therefore, project impacts would not be cumulatively considerable.

5.4.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the following impacts would be less than significant: 5.4-1, 5.4-2, 5.4-3, and 5.4-4.

5.4.7 Mitigation Measures

No mitigation measures are required.

5.4.8 Level of Significance After Mitigation

Impacts would be less than significant.

5. Environmental Analysis

NOISE

5.4.9 References

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5. Environmental Analysis

NOISE

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6. Significant Unavoidable Adverse Impacts

Chapter 1, *Executive Summary*, contains Table 1-1, which summarizes the environmental impacts, proposed mitigation measures, and level of impact significance before and after mitigation. The California Environmental Quality Act (CEQA) Guidelines, § 15126.2(b), requires a discussion of any significant impacts that cannot be reduced to levels of insignificance. Although mitigation measures have been identified, where feasible, for all of the potentially significant impacts of the proposed project, the project would result in one impact that is significant and unavoidable even after implementation of feasible mitigation measures. This impact is discussed in Section 5.2, *Cultural Resources*. The proposed project would result in a significant and unavoidable impact to a building that meets the definition of a historical resource under CEQA.

The house at 2226 Seventh Street was built in 1910, within the period of significance of the Seventh Street East Historic District (1880–1945), and it continues to reflect the context of community development in the City of Riverside. The house is a good example of the Craftsman style, one of the styles for which the district is eligible and retains its integrity. Therefore, the house is considered a contributing resource to the Seventh Street East Historic District, which is a historical resource for the purposes of CEQA. The project would result in demolition of a contributing resource to a historical resource. Therefore, the proposed project would result in a significant impact to a historic resource.

Compliance with Mitigation Measure CUL-1 Measure A and B would reduce impacts to less than significant. However, there is no guarantee that the house would be relocated to another site within the boundaries of the Seventh Street East Historic District as required under Mitigation Measure CUL-1 Measure A and B, and Measures C and D would not reduce impacts to less than significant because the house would be demolished.

Demolition of the 2226 Seventh Street residence is considered a significant impact. Even after the implementation of mitigation measures, the impact would remain significant and unavoidable.

6. Significant Unavoidable Adverse Impacts

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7. Alternatives to the Proposed Project

7.1 INTRODUCTION

7.1.1 Purpose and Scope

The California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) include a discussion of reasonable project alternatives that would “feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives” (CEQA Guidelines § 15126.6[a]). As required by CEQA, this chapter identifies and evaluates potential alternatives to the proposed project.

Section 15126.6 of the CEQA Guidelines explains the foundation and legal requirements for the alternatives analysis in an EIR. Key provisions are:

- “[T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.” (15126.6[b])
- “The specific alternative of ‘no project’ shall also be evaluated along with its impact.” (15126.6[e][1])
- “The no project analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” (15126.6[e][2])
- “The range of alternatives required in an EIR is governed by a ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.” (15126.6[f])
- “Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries..., and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)” (15126.6[f][1]).

7. Alternatives to the Proposed Project

- “Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.” (15126.6[f][2][A])
- “An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.” (15126.6[f][3])

For each development alternative, this analysis:

- Describes the alternative.
- Analyzes the impact of the alternative as compared to the proposed project.
- Identifies the impacts of the project that would be avoided or lessened by the alternative.
- Assesses whether the alternative would meet most of the basic project objectives.
- Evaluates the comparative merits of the alternative and the project.

According to § 15126.6(d) of the CEQA Guidelines, “[i]f an alternative would cause...significant effects in addition those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.”

7.1.2 Project Objectives

As described in Section 3.2, the following objectives have been established for the proposed project and will aid decision makers in their review of the project, the project alternatives, and associated environmental impacts.¹

- **Objective 1:** Increase the safety and security of the staff and students through the campus modifications and improvements.
- **Objective 2:** Repair or replace aging, outdated classrooms and school buildings.
- **Objective 3:** Repair and seismically retrofit aging facilities while also bringing buildings to code to meet the Americans with Disabilities Act (ADA) programmatic access requirements.
- **Objective 4:** Upgrade buildings to include modern classroom spaces that can accommodate the California Department of Education’s and District’s standard classroom space of 960 square feet.
- **Objective 5:** Upgrade campus for modern technology to meet the needs of the students and operational needs of the campus.
- **Objective 6:** Respect the history of the campus through the rehabilitation, retention, and reuse of older buildings, to the extent feasible, while modernizing the campus to address the current needs of the campus.

¹ The objectives are numbered for ease of reference; the order does not indicate any priority.

7. Alternatives to the Proposed Project

- **Objective 7:** Provide new student drop-off/pick-up area to reduce neighborhood intrusion and consolidate unloading and loading procedures.
- **Objective 8:** Limit the disruption of the educational experience of students during construction of the project by limiting the number and/or duration of phases.

7.2 POTENTIALLY SIGNIFICANT IMPACTS OF THE PROJECT

A primary consideration in defining project alternatives is their potential to reduce or eliminate significant impacts and to meet most of the objectives. Pursuant to CEQA Guidelines Section 15126.6[b], alternatives to the proposed project include those that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree attainment of the project objectives, or would be more costly.

- The 1910 house at 2226 Seventh Street property falls within the period of significance of the Seventh Street East Historic District (1880–1945) and continues to reflect the context of community development within the City of Riverside. The house is a good example of the Craftsman style, one of the styles for which the district is eligible and retains its integrity. Therefore, the house qualifies as a contributor to the Seventh Street East Historic District. Additionally, because Seventh Street East Historic District a historical resource under CEQA, and the property is a contributor to the District, the property is also a historical resource under CEQA. Demolition of the house would permanently remove this historic resource (1 of only 54 remaining) from the Seventh Street East Historic District. Removal of the house is considered a significant and unavoidable impact. Therefore, alternatives to the proposed project analyzed in this chapter include those that are capable of avoiding or substantially reducing the impact to the Seventh Street East Historic District.

7.3 ALTERNATIVES CONSIDERED AND REJECTED DURING THE SCOPING/PROJECT PLANNING PROCESS

The following is a discussion of the land use alternatives considered during the scoping and planning process and the reasons they were not selected for analysis in this EIR.

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. The key question and first step in the analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (CEQA Guidelines § 15126[5][B][1]).

7.3.1 Alternative Site, Off-Site

The project by design is intended for the Longfellow Elementary School campus. Consequently, an alternative off-site location is not a feasible alternative and would not meet the project objectives. For these reasons, this

7. Alternatives to the Proposed Project

alternative was not considered.

7.3.2 Alternative Site, On-Site

During the project planning and design review process, various alternative building configurations were explored and presented to the school administration and staff and to stakeholders. These options included various locations for the new classroom buildings and parking lot. However, due to site constraints and the constraints of the buildings (e.g., existing structural systems in older buildings and building locations do not allow the enlargement or combining of the existing classrooms).

As an existing campus, the available spaces for new permanent classroom buildings are limited. Although portable buildings would be removed, alternative on-site locations for new buildings would require the removal of spaces on the campus that are comparable to or the same as the proposed project, but without providing the same benefits—e.g., enhanced security, classrooms designed to accommodate the programmatic needs of the campus, sensitivity to the existing buildings, accommodation for new drop-off/pick-up procedures. Through this process, it was determined that the proposed project most closely aligned with the school's programmatic needs and project objectives.

7.4 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on the criteria listed above, three alternatives were determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic project objectives but may avoid or substantially lessen the significant effects of the project.

- No Project Alternative
- No Acquisition Alternative
- Integrated Historic Resource Alternative

An EIR must identify an “environmentally superior” alternative, and where the No Project Alternative is identified as environmentally superior, the EIR is must identify as environmentally superior an alternative from the others evaluated. Each alternative's environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior. Only impacts found significant and unavoidable are used in making the determination of whether an alternative is environmentally superior or inferior to the proposed project. Only the impacts involving cultural resources were found to be significant and unavoidable, as outlined in Section 7.3, *Potentially Significant Impacts of the Project*. Section 7.7, *Environmentally Superior Alternative*, identifies the alternative that was determined to be environmentally superior. The proposed project is analyzed in detail in Chapter 5, *Environmental Analysis*, of this Draft EIR.

7.4.1 No Project Alternative

CEQA Guidelines require the analysis of a No Project Alternative. This analysis must discuss the existing site conditions as well as what would be reasonably expected in the foreseeable future based on any current plans if the project were not approved. The No Project Alternative must be consistent with available infrastructure

7. Alternatives to the Proposed Project

and community services. This discussion compares the environmental effects of the campus and school program remaining in their existing condition against the environmental effects if the project were approved.

Under the No Project Alternative, the property acquisition, expansion, and campus improvements would not occur at Longfellow Elementary School, and the campus would remain in its current state. Without the building improvements, such as repairs to windows, ceilings, flooring roofing, lighting, and electrical, the condition of the permanent buildings would continue to deteriorate. Students would continue to attend classes in old, outdated portable buildings. Additionally, students would continue to attend classes in classrooms that do not accommodate the needs of the educational programs and do not comply with the California Department of Education's or District's standard classroom space of 960 square feet. Utilities and buildings would continue to operate in an inefficient manner (e.g., water and electricity). Finally, student drop-off/pick-up would continue to be spread out on adjacent streets.

7.4.2 No Acquisition Alternative

Under the No Acquisition Alternative, the District would not acquire the two residential properties, the cul-de-sac, or the alley. Other project components would be implemented similar to the proposed project, including removal of portables, construction of the three buildings, modernization of the five buildings, and conversion of the administration building (attached to Building F) to parent center/classroom and day care.

The new parking lot would not be constructed, and student drop-off/pick-up would continue on surrounding streets. The proposed two-story classroom building in this alternative would be moved about 25 feet west, away from the residential properties. Without the acquisition of the adjacent residential properties, cul-de-sac, and alley, the new buildings would take up additional space on the campus, and hardcourt and playground space would be reduced.

7.4.3 Integrated Historic Resource Alternative

Under the Integrated Historic Resource Alternative, the RUSD would acquire the two residential properties, cul-de-sac, and alley; however, the house at 2226 Seventh Street (historic resource) would be retained for reuse by the District. The 2210 Seventh Street property, cul-de-sac, and alley would be cleared for construction of a single-lane, one-way, on-campus student drop-off/pick-up lane and one row of parking.

The house at 2226 Seventh Street would be maintained for administrative and possible community use. Because it would not comply with Field Act standards, the house would not be used for classroom space. Other project components would be implemented similar to the proposed project, including removal of portables, construction of the three buildings, modernization of the five buildings, and conversion of the administration building to parent center/classroom and day care.

7. Alternatives to the Proposed Project

7.5 ALTERNATIVES ANALYSIS

7.5.1 No Project Alternative

Under the No Project Alternative, the property acquisition, construction and modernization activities, and campuswide improvements would not be completed, and the campus would remain in its current condition. No physical changes would occur on the campus. The No Project Alternative would avoid demolition of the historic resource. This alternative would not incorporate any of the building upgrades with the exception of standard ongoing maintenance. The existing buildings and landscapes would deteriorate (most noticeably cosmetically as nonessential maintenance and repairs are deferred). Only critical repairs needed for health and safety would be addressed on an as-needed basis.

7.5.1.1 ABILITY TO REDUCE ENVIRONMENTAL IMPACTS

No changes would be made to the campus or the surrounding neighborhood. This alternative would not involve demolition of a historic resource (2226 Seventh Street property). The significant and unavoidable project-related historic resource impacts would be eliminated; therefore, the No Project Alternative would be superior to the project.

7.5.1.2 ABILITY TO ACHIEVE PROJECT OBJECTIVES

The No Project Alternative would meet one of the project objectives. Because this alternative would not involve any construction, there would be no classroom disruption.

- **Objective 8:** Limit the disruption of the educational experience of students during construction of the project by limiting the number and/or duration of phases.

This alternative would not meet seven of the eight project objectives because no improvements or new building construction would occur on campus.

- **Objective 1:** Increase the safety and security of the staff and students through the campus modifications and improvements.
- **Objective 2:** Repair or replace aging, outdated classrooms and school buildings.
- **Objective 3:** Repair and seismically retrofit aging facilities while also bringing buildings to code to meet the Americans with Disabilities Act (ADA) programmatic access requirements.
- **Objective 4:** Upgrade buildings to include modern classroom spaces that can accommodate the California Department of Education's and District's standard classroom space of 960 square feet.
- **Objective 5:** Upgrade campus for modern technology to meet the needs of the students and operational needs of the campus.

7. Alternatives to the Proposed Project

- **Objective 6:** Respect the history of the campus through the rehabilitation, retention and reuse of older buildings, to the extent feasible, while modernizing the campus to address the current needs of the campus.
- **Objective 7:** Provide new student drop-off/pick-up area to reduce neighborhood intrusion and consolidate unloading and loading procedures.

7.5.2 No Acquisition Alternative

Under the No Acquisition Alternative, the District would not acquire the two residential properties, cul-de-sac, and alley. The new parking lot would not be constructed, and student drop-off/pick-up would continue on surrounding streets. Without the new drop-off/pick-up procedures, student safety would not be increased and neighborhood vehicle and pedestrian intrusion would not be reduced.

Other project components would be implemented similar to the proposed project, including removal of portables, construction of the three buildings, modernization of the five buildings, and conversion of the administration building (attached to Building F) to parent center/classroom and day care.

7.5.2.1 ABILITY TO REDUCE ENVIRONMENTAL IMPACTS

Under this alternative the District would not acquire the adjacent properties and would not demolish a historic resource (2226 Seventh Street property). Significant and unavoidable project-related historic resource impacts would be eliminated; therefore, the No Acquisition Alternative would be superior to the project.

7.5.2.2 ABILITY TO ACHIEVE PROJECT OBJECTIVES

The No Acquisition Alternative would meet Objectives 2, 3, 4, 5, 6, and 8.

- **Objective 2:** Repair or replace aging, outdated classrooms and school buildings.
- **Objective 3:** Repair and seismically retrofit aging facilities while also bringing buildings to code to meet the Americans with Disabilities Act (ADA) programmatic access requirements.
- **Objective 4:** Upgrade buildings to include modern classroom spaces that can accommodate the California Department of Education's and District's standard classroom space of 960 square feet.
- **Objective 5:** Upgrade campus for modern technology to meet the needs of the students and operational needs of the campus.
- **Objective 6:** Respect the history of the campus through the rehabilitation, retention and reuse of older buildings, to the extent feasible, while modernizing the campus to address the current needs of the campus.
- **Objective 8:** Limit the disruption of the educational experience of students during construction of the project by limiting the number and/or duration of phases

7. Alternatives to the Proposed Project

This alternative would meet seven of the eight project objectives. Because the adjacent property would not be available for the new parking lot and student drop-off/pick-up, it would not meet Objective 1 and 7.

- **Objective 1:** Increase the safety and security of the staff and students through the campus modifications and improvements.
- **Objective 7:** Provide new student drop-off/pick-up area to reduce neighborhood intrusion and consolidate unloading and loading procedures.

7.5.3 Integrated Historic Resource Alternative

Under the Integrated Historic Resource Alternative, the District would acquire the two residential properties, cul-de-sac, and alley; however, the house at 2226 Seventh Street (historic resource) would be retained for reuse by the District. The 2210 Seventh Street property, cul-de-sac, and alley would be cleared for construction of a single-lane, one-way, on-campus student drop-off/pick-up lane and one row of parking.

Other project components would be implemented similar to the proposed project, including removal of portables, construction of the three buildings, modernization of the five buildings, and conversion of the administration building (attached to Building F) to parent center/classroom and day care.

Without the removal of the buildings at 2226 Seventh Street, new parking lot and student drop-off/pick-up area would be significantly smaller; therefore, it is likely that the existing student drop-off/pick-up locations would continue to be used. Also, the historic resource would no longer be on a residential street (cul-de-sac); it would be surrounded by the elementary school. The house would be part of the school and would still be located within the Seventh Street East Historic District.

7.5.3.1 ABILITY TO REDUCE ENVIRONMENTAL IMPACTS

The context and setting of the house would be significantly changed. Although the resource would remain, the integrity of the historic resource may be diminished, but it would not be eliminated. This alternative would avoid the significant and unavoidable impact to historical resources.

7.5.3.2 ABILITY TO ACHIEVE PROJECT OBJECTIVES

The Integrated Historic Resource Alternative would meet Objectives 2, 3, 4, 5, 6, and 8.

- **Objective 2:** Repair or replace aging, outdated classrooms and school buildings.
- **Objective 3:** Repair and seismically retrofit aging facilities while also bringing buildings to code to meet the Americans with Disabilities Act (ADA) programmatic access requirements.
- **Objective 4:** Upgrade buildings to include modern classroom spaces that can accommodate the California Department of Education's and District's standard classroom space of 960 square feet.
- **Objective 5:** Upgrade campus for modern technology to meet the needs of the students and operational needs of the campus.

7. Alternatives to the Proposed Project

- **Objective 6:** Respect the history of the campus through the rehabilitation, retention and reuse of older buildings, to the extent feasible, while modernizing the campus to address the current needs of the campus.
- **Objective 8:** Limit the disruption of the educational experience of students during construction of the project by limiting the number and/or duration of phases

This alternative would fully meet six of the eight project objectives and would meet Objective 1 and 7 but to a lesser extent than the project.

- **Objective 1:** Increase the safety and security of the staff and students through the campus modifications and improvements
- **Objective 7:** Provide new student drop-off/pick-up area to reduce neighborhood intrusion and consolidate unloading and loading procedures.

7.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires a lead agency to identify the “environmentally superior alternative.” In cases where the “No Project” Alternative is environmentally superior to the proposed project, the environmentally superior development alternative must be identified. The No Acquisition Alternative has been identified as “environmentally superior” to the proposed project. This alternative would eliminate historic resource impacts by not demolishing the house at 2226 Seventh Street. Under the No Acquisition Alternative, the property would remain a contributor to the Seventh Street East Historic District and impacts to historic resources would be less than significant. However, this alternative would not meet two of the eight objectives and would not provide new drop-off/pick-up that would increase student safety and reduce neighborhood vehicle and pedestrian intrusion.

7. Alternatives to the Proposed Project

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8. Impacts Found Not to Be Significant

California Public Resources Code § 21003 (f) states: "...it is the policy of the state that...[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." This policy is reflected in the California Environmental Quality Act Guidelines (CEQA Guidelines) § 15126.2(a), which states that "[a]n EIR [environmental impact report] shall identify and focus on the significant environmental impacts of the proposed project" and § 15143, which states that "[t]he EIR shall focus on the significant effects on the environment." Guidelines § 15128 requires that an EIR contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the Draft EIR (Chapter 5).

This chapter includes the analysis for the environmental topics where the project would have either no impact or a less than significant impact, as shown below.

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Hydrology & Water Quality | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Agriculture & Forestry Resources | <input type="checkbox"/> Land Use & Planning | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Utilities & Service Systems |
| <input type="checkbox"/> Geology & Soils | <input type="checkbox"/> Pedestrian Safety | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Population & Housing | <input type="checkbox"/> Mandatory Findings of Significance |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Public Services | |

The following topics are fully analyzed in Chapter 5 of this EIR.

- | | | | |
|--------------------------------------|---|---|--------------------------------|
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Noise |
|--------------------------------------|---|---|--------------------------------|

8.1 AESTHETICS

Would the project:

a) Have a substantial adverse effect on a scenic vista?

No Impact. Vistas provide visual access or panoramic views to a large geographic area. The field of view from a vista location can be wide and extend into the distance. Panoramic views are usually associated with vantage

8. Impacts Found Not to Be Significant

points looking out over a section of urban or natural areas that provide a geographic orientation not commonly available. Examples of panoramic views include an urban skyline, valley, mountain range, the ocean, or other water bodies.

The campus and surrounding area are flat and developed with urban land uses, including residential and commercial. The campus includes one-story and two-story buildings, surface parking, hardcourts, student gathering areas, and ornamental trees and landscaping. Although the project would include a new 2-story building and two 1-story buildings, there are no protected or designated scenic vistas or views in the project vicinity. New buildings would have an overall height profile similar to existing buildings. Development of the project would not obscure any scenic vistas. Therefore, no impact would occur.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The nearest officially designated scenic highway is State Route 243 (from Banning south to Idyllwild), about 27 miles east of the project site. The closest highway eligible for designation but not officially designated is Interstate Highway 15, which is about 12 miles southwest of the project site (Caltrans 2011). The project would not have an impact on trees, rock outcroppings, and historic buildings within a state scenic highway.

The nearest City of Riverside scenic boulevard is University Avenue (Riverside 2002). The project site and University Avenue are separated by an automotive service shop, a tattoo parlor, a fenced-off vacant lot, and a single-story vacant building that was previously occupied by a bail bonds company. Project development would not result in impacts to scenic resources within a designated State scenic highway or other scenic road. Therefore, no impact would occur.

c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. The campus is in a fully developed area and surrounded by adjacent residential and commercial uses and qualifies as an “urbanized area.”¹ Both the school and expansion site are zoned PF (Public Facilities). The project includes demolition and removal of portable buildings and residential buildings, construction of one- and two-story buildings, and other site and building improvements. The project would not conflict with Public Facilities zoning or regulations governing scenic quality. Therefore, no impacts to the scenic quality would occur.

¹ See PRC § 21071/CEQA Guidelines § 15191(m)(1). For an incorporated city, “urbanized area” means a city that either by itself or in combination with two contiguous incorporated cities has a population of at least 100,000 persons. City of Riverside has a population of about 303,871 (USCB 2010).

8. Impacts Found Not to Be Significant

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The two major causes of light pollution in this setting are spill light and glare. Spill light is caused by misdirected light that illuminates areas outside the area intended to be lit. Glare occurs when a bright object is against (or reflects off) a dark background or shiny surface.

The campus and expansion site are fully developed and in a suburban setting. The existing school and homes generate nighttime light from parking lot and building lights (interior and exterior). Surrounding land uses also generate significant light from street lights, vehicle lights, and building lights.

The project would not significantly increase nighttime lighting because the new buildings would replace existing buildings. Furthermore, the project does not include any new sources of high-intensity nighttime lighting, such as stadium lights. All lights on new buildings and any new site lighting would be focused and directed to reduce spill light and glare off the campus. The new parking lot would not have nighttime lighting. Existing sources of light that are currently installed by the City of Riverside along Franklin Avenue will serve as lighting for the proposed parking lot. Light and glare impacts would be less than significant.

8.2 AGRICULTURE AND FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The Project would not convert farmland to non-agricultural uses. There is no agricultural or farm use on or in the vicinity of the Campus; therefore, no project-related farmland conversion would occur. The Campus is fully developed and is not mapped as important farmland on the California Important Farmland Finder (DLRP n.d.).² No impact would occur and no further analysis is required.

² Most of urbanized Los Angeles County, including the project site, is not mapped on the California Important Farmland Finder due to a lack of farmland.

8. Impacts Found Not to Be Significant

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. Williamson Act contracts restrict the use of privately owned land to agriculture and compatible open-space uses under contract with local governments; in exchange, the land is taxed based on actual use rather than potential market value. The zoning designation for the project site is PF (Public Facilities). There is no Williamson Act contract in effect onsite (DLRP 2015). No impact would occur.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. Project development would not conflict with existing zoning for forest land, timberland, or timberland production. Forest land is defined as “land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits” (California PRC § 12223 [g]). Timberland is defined as “land...which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees” (California PRC § 4526). The project site is zoned public facility and is not zoned for forest land or timberland use. No impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. Construction would not result in the loss or conversion of forest land. No vegetation onsite is cultivated for forest resources. Vegetation is limited to ornamental trees, shrubs, and a few small patches of turf. No forest land would be affected by the project. No impact would occur.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. There is no mapped important farmland or forest land on or near the campus, and project development would not indirectly cause conversion of such land to non-agricultural or non-forest use. No impact would occur.

8.3 BIOLOGICAL RESOURCES

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. The project site is built out with school and residential uses and there is no suitable habitat for sensitive plant or animal species onsite. Vegetation onsite is limited to ornamental trees, turf playfield and

8. Impacts Found Not to Be Significant

landscape, and some potted plants (PlaceWorks 2019a). There is no native habitat and no suitable habitat for threatened, endangered, or rare species onsite. No impacts would occur.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. Sensitive natural communities are natural communities that are known to provide habitat for sensitive animal or plant species or are known to be important wildlife corridors. Riparian habitats occur along the banks of rivers and streams. No locally designated natural communities or riparian habitats exist on the campus or expansion site or surrounding community. The project site is not within an adopted habitat conservation plan, natural community conservation plan, or similar plan. The site is neither within nor proximate to any significant ecological area, land trust, or conservation plan. No impact would occur.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. Wetlands are defined under the federal Clean Water Act as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Wetlands include playas, ponds, and wet meadows; lakes and reservoirs; rivers, streams, and canals; estuaries; and beaches and rocky shores (SCWRP 2018). No wetlands were observed on the project site. No impact would occur.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant Impact. The project site (campus and residential properties) is surrounded by fencing and concrete block walls, and developed with buildings, asphalt and concrete surfaces, a turf playfield, landscaped areas, and residential buildings. The site has no native habitat and no wildlife corridors and is not available for overland wildlife movement. Migratory nongame native bird species are protected by the California Fish and Game Code, Sections 3503, 3503.5, and 3513, which prohibit the take of all birds and their active nests. The District would comply with the California Fish and Game Code, which would ensure that if construction occurs during the avian breeding season, appropriate measures would be taken to avoid impacts to nesting birds. Compliance would involve preconstruction surveys. The surveys would be conducted no more than three days prior to construction activities. If an active bird nest is observed, the surveyor/biologist shall determine the appropriate buffer around the nest. Buffers are determined on species-specific requirements and nest location. No construction activity would occur within the buffer zone until the nest is vacated, juveniles have fledged, and there is no evidence of a second attempt at nesting. Impacts to nesting birds would be less than significant.

8. Impacts Found Not to Be Significant

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. In 2003, the City of Riverside adopted the Western Riverside Multi-Species Habitat Conservation Plan (MSHCP) to protect native plants, birds, and animals and their habitat. The project site does not fall within a MSHCP Criteria Cell and is not in any of the survey areas (RCA 2017). The site has several trees of various species, sizes, and maturity that would require removal to accommodate the new buildings and parking lot. New trees and landscape would be installed. The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. No impact would occur.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The project site is in the plan area of two habitat conservation plans—the Western Riverside County MSHCP and the Stephens' Kangaroo Rat Habitat Conservation Plan (HCP). The Western Riverside MSHCP has a plan area of about 1,966 square miles, including about 791 square miles designated as reserves, extending from the western county boundary to the San Jacinto Mountains (Riverside County 2014). However, the project site is fully developed, so it is not subject to survey requirements under the Stephens' Kangaroo Rat HCP or the Western Riverside MSHCP Consistency Analysis (RCA 2017). The project would not conflict with conservation plans or other approved local, regional, or state habitat conservation plans, and no impact would occur.

8.4 ENERGY

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

No Impact. The project would result in short-term construction and long-term operational energy consumption.

Short-Term Construction

Development of the project would include short-term construction activities that would consume energy, primarily in the form of diesel fuel (e.g., mobile construction equipment) and electricity (e.g., power tools). Construction activities would be subject to applicable regulations such as anti-idling measures, limits on duration of activities, and the use of alternative fuels, thereby reducing energy consumption. There are no aspects of the project that would foreseeably result in the inefficient, wasteful, or unnecessary consumption of energy during construction activities. For example, there are no unusual characteristics that would directly or indirectly cause construction activities to be any less efficient than would otherwise occur elsewhere (restrictions on equipment, labor, types of activities, etc.). The project would not result in the inefficient, wasteful, or unnecessary consumption of energy during construction activities.

8. Impacts Found Not to Be Significant

Operation

Operation of the project would not generate an increase in the demand for electricity, natural gas, or transportation energy compared to existing conditions. During operation energy is used for heating, cooling, and ventilation of buildings; water heating; equipment; appliances; and indoor, outdoor, perimeter, and parking lot lighting; security systems. Table 8-1 shows the estimated annual natural gas and electricity usage for the proposed project. Total electricity and natural gas usage are based on the CalEEMod, Version 2016.3.2, default electricity and natural gas usage rates for an elementary school and the building square footage of the proposed buildings. The CalEEMod default electricity and natural gas usage rates are based on the 2016 Building Energy Efficiency Standards. The new buildings would use an estimated total of 105,555 kilowatt-hours (kWh) of electricity and 117,384 kilo-British Thermal Units (kBTU) of natural gas annually. The new buildings would replace existing buildings on the campus.

Table 8-1 Energy Use

ELECTRICITY					
	sf	T24 Electricity Rate (kWh/sf)	Non-T24 Electricity Rate (kWh/sf)	Lighting Electricity (kWh/sf)	Electricity (kWh/yr)
New Buildings	13,400	2.78	1.49	3.03	97,820
Parking Lot	22,100	0	0	0.35	7,735
Total					105,555
NATURAL GAS					
	sf	T24 Natural Gas Rate (kBTU/yr/sf)	Non-T24 Natural Gas Rate (kBTU/yr/sf)	TOTAL (kBTU/yr)	
New Buildings	13,400	6.97	1.79	117,384	
Parking Lot	22,100	0	0	0	
Total					117,384

Source: CalEEMod 2016.3.2.

Notes kBTU = kilo British Thermal Units; kWh = kilowatt-hour; sf = square feet

Rates based on 2016 Title 24 Building Energy Standards and Climate Zone10.

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle to incorporate new energy efficiency technologies. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018 and go into effect for new construction starting January 1, 2020. The 2019 standards focus on four key areas: 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements (CEC 2018a). Under the 2019 standards, nonresidential buildings (which include school buildings) will be 30 percent more energy efficient compared to the 2016 standards (CEC 2018b). Also, the new buildings would meet the Building Energy Efficiency Standards and the California Green Building Standards Code (CALGreen) and would be significantly more energy efficient than the existing buildings on Campus.

8. Impacts Found Not to Be Significant

Because the project would not result in an increase in students or staff, it would not result in an increase in motor vehicle transportation energy during operation over what is currently used.

The project would not result in inefficient, wasteful, and unnecessary consumption of energy during construction or operation. No impacts would occur.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The State's electricity grid is transitioning to renewable energy under California's Renewable Energy Program. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. Electricity production from renewable sources is generally considered carbon neutral. Executive Order S-14-08, signed in November 2008, expanded the state's renewable portfolios standard (RPS) to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Senate Bill 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. Senate Bill 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. On September 10, 2018, Governor Brown signed Senate Bill 100 (SB 100), which raises California's RPS requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under SB 100 the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Also, the new buildings would comply with the Building Energy Efficiency Standards and the California Green Building Standards Code (CALGreen) and would be significantly more energy efficient than the existing buildings on campus. The project would be reviewed by DSA for compliance with design and construction and energy compliance, and would not conflict with state or local plans for renewable energy or energy efficiency. No impacts would occur.

8.5 GEOLOGY AND SOILS

Would the project:

- a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

No Impact. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazards of surface faulting and fault rupture on habitable buildings. Fault rupture generally occurs within 50 feet of an active fault line and is limited to the immediate area of the fault. Active earthquake faults are faults

8. Impacts Found Not to Be Significant

where surface rupture has occurred within the last 11,000 years. The site is not within or immediately adjacent to (i.e., within a few hundred feet) a currently established Alquist-Priolo Earthquake Fault Zone for surface fault rupture hazards. The nearest Alquist-Priolo Earthquake Fault Zone is along the San Jacinto Fault Zone about 6.5 miles northeast of the project site (CDC 2015). The project site is not within or immediately adjacent to (i.e., within a few hundred feet) an established Alquist-Priolo Earthquake Fault Zone. The project would not expose people or structures to substantial hazards from surface rupture of a known active fault, and no impact would occur.

ii) Strong seismic ground shaking?

Less Than Significant Impact. The project would not increase exposure of people or structures to earthquake impacts. Southern California is a seismically active region. Impacts from ground shaking could occur many miles from an earthquake epicenter. The potential severity of ground shaking depends on many factors, including the distance from the originating fault, the earthquake magnitude, and the nature of the earth materials beneath a given site.

There are several known faults in the Riverside region. The project site is approximately 6.5 miles southwest of the San Jacinto Fault Zone (CDC 2015). Because of the proximity to a known fault, and because the entire southern California region is considered seismically active, there is a potential for people and structures to experience strong ground shaking in the future from local and regional faults

Although seismic activity from this fault could potentially affect the school, it is at no greater risk than the surrounding development and infrastructure.

The new school buildings are designed in compliance with the California Building Code and the California Geological Survey's "Guidelines for Evaluating and Mitigating Seismic Hazards in California" and "Checklist for the Review of Geologic/Seismic Reports for California Schools, Hospitals, and Essential Services Buildings"(CGS 2008a, 2013).

The project also requires review from the Division of the State Architect (DSA) for compliance with design and construction and accessibility standards and codes, including seismic requirements. RUSD, with oversight from DSA, would comply with these requirements in the design and construction of the new school buildings. Seismic ground shaking impacts would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction refers to loose, saturated sand, or gravel deposits that lose their load-supporting capability when subjected to intense shaking. Liquefaction potential varies based upon three main contributing factors: 1) cohesionless, granular soils having relatively low densities (usually of Holocene age);³ 2) shallow groundwater (generally less than 50 feet); and 3) moderate to high seismic ground shaking.

³ The Holocene epoch began 12,000 to 11,500 years ago.

8. Impacts Found Not to Be Significant

The project site is at an elevation of about 910 feet above sea level. The topography in the vicinity has a general gradient downward toward the northwest. The soil beneath the project site is classified as fine sandy loam. The native soils encountered and collected during the investigation consisted of loose to medium stiff dark brown to brown silt with or without fine sand (PlaceWorks 2019a). This soil has moderate infiltration rated and is considered well-draining (PlaceWorks 2019b).

Liquefaction potential is mapped as low by the City (Riverside 2018). Therefore, the project would not expose people to adverse effects associated with liquefaction. Impacts would be less than significant.

iv) Landslides?

No Impact. Landsliding is a type of erosion in which masses of earth and rock move down slope as a single unit. Susceptibility of slopes to landslides and lurching (earth movement at right angles to a cliff or steep slope during ground shaking) depend on several factors that are usually present in combination—steep slopes, condition of rock and soil materials, presence of water, formational contacts, geologic shear zones, and seismic activity. There are no known landslides near the site, nor is the school in the path of any known or potential landslides or seismic slope instability. The project site and surroundings are nearly level, with a northwest slope of about 1.5 percent grade. Project development would not pose hazards to people or structures from earthquake-induced landslides, and no impact would occur.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The native topsoil was removed and replaced with stable fill material during development of the original residential parcels and then the Campus; therefore, modernization of the Campus would not result in the loss of topsoil.⁴

Erosion is a normal and inevitable geologic process whereby earthen materials are loosened, worn away, decomposed, or dissolved, and removed from one place and transported to another. Precipitation, running water, waves, and wind are all agents of erosion. Ordinarily, erosion proceeds imperceptibly, but when the natural equilibrium of the environment is changed, the rate of erosion can be greatly accelerated. This can create aesthetic as well as engineering problems on undeveloped sites. Accelerated erosion in an urban area can cause damage by undermining structures; blocking storm drains; and depositing silt, sand, or mud on roads and in tunnels. Eroded materials can eventually be deposited in local waters, where the carried silt remains suspended in the water for some time, constituting a pollutant and altering the normal balance of plant and animal life.

Construction Phase

Project-related construction activities would expose soil through excavation, grading, and trenching, and thus could cause erosion during heavy winds or rain storms. Construction projects of one acre or more are regulated under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2012-0006-DWQ)

⁴ Topsoil is the thin, rich layer of soil where most nutrients for plants are found and where most land-based biological activity takes place. The loss of topsoil through erosion is a major agricultural problem.

8. Impacts Found Not to Be Significant

issued by the State Water Resources Control Board. RUSD would obtain coverage by preparing and implementing a Stormwater Pollution Prevention Plan (SWPPP), estimating sediment risk from construction activities to receiving waters, and specifying best management practices (BMPs) that would be incorporated into the construction plan to minimize stormwater pollution. Categories of BMPs used in SWPPPs are described in Table 8-2. The construction will occur in an area larger than one acre; thus, construction would be subject to the Statewide Construction General Permit and implementation of BMPs specified in the SWPPP. Project-related erosion impacts would be less than significant.

Table 8-2 Construction BMPs

Category	Purpose	Examples
Erosion Controls	Consists of using project scheduling and planning to reduce soil or vegetation disturbance (particularly during the rainy season), preventing or reducing erosion potential by diverting or controlling drainage, as well as preparing and stabilizing disturbed soil areas.	Scheduling, preservation of existing vegetation, hydraulic mulch, hydroseeding, soil binders, straw mulch, geotextile and mats, wood mulching, earth dikes and drainage swales, velocity dissipation devices, slope drains, streambank stabilization, compost blankets, soil preparation/roughening, and non-vegetative stabilization
Sediment Controls	Filter out soil particles that have been detached and transported in water.	Silt fence, sediment basin, sediment trap, check dam, fiber rolls, gravel bag berm, street sweeping and vacuuming, sandbag barrier, straw bale barrier, storm drain inlet protection, manufactured linear sediment controls, compost socks and berms, and biofilter bags
Wind Erosion Controls	Consists of applying water or other dust palliatives to prevent or minimize dust nuisance.	Dust control soil binders, chemical dust suppressants, covering stockpiles, permanent vegetation, mulching, watering, temporary gravel construction, synthetic covers, and minimization of disturbed area
Tracking Controls	Minimize the tracking of soil offsite by vehicles	Stabilized construction roadways and construction entrances/exits, and entrance/outlet tire wash.
Non-Storm Water Management Controls	Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment. Conduct various construction operations, including paving, grinding, and concrete curing and finishing, in ways that minimize non-stormwater discharges and contamination of any such discharges.	Water conservation practices, temporary stream crossings, clear water diversions, illicit connection/discharge, potable and irrigation water management, and the proper management of the following operations: paving and grinding, dewatering, vehicle and equipment cleaning, fueling and maintenance, pile driving, concrete curing, concrete finishing, demolition adjacent to water, material over water, and temporary batch plants.
Waste Management and Controls (i.e., good housekeeping practices)	Management of materials and wastes to avoid contamination of stormwater.	Stockpile management, spill prevention and control, solid waste management, hazardous waste management, contaminated soil management, concrete waste management, sanitary/septic waste management, liquid waste management, and management of material delivery storage and use.

Source: CASQA 2012.

Operational Phase

After completion of the project, ground surfaces would be either hardscape or maintained landscaping, and no large areas of exposed soil would be left to erode off the site. Waste discharge requirements for discharges to municipal storm drain systems (MS4s) in the Riverside County portion of the Santa Ana River Watershed are

8. Impacts Found Not to Be Significant

set forth in Order No. R8-2010-0033, issued by the Santa Ana Regional Water Quality Control Board (RWQCB) in 2010. In compliance with this requirement the District would implement low-impact development (LID), as outlined in the Riverside County Flood Control and Water Conservation District Standard Manual. LID is an approach to land development (or redevelopment) that works with nature to manage stormwater as close to its source as possible.

LID employs principles such as preserving and recreating natural landscape features, minimizing effective imperviousness to create functional site drainage that treat stormwater as a resource rather than a waste product. There are many practices that have been used to adhere to these principles, such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements. By implementing LID principles and practices, water can be managed in a way that reduces the impact of built areas and promotes the natural movement of water within an ecosystem or watershed. Applied on a broad scale, LID can maintain or restore a watershed's hydrologic and ecological functions (USEPA 2016a). By retaining and treating stormwater, sediments and pollutants would be significantly reduced. RUSD would comply with existing regulations. Operational phase soil erosion impacts would be less than significant.

- c) **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?**

Less Than Significant Impact. Hazards arising from liquefaction and landslides would be less than significant, as discussed above in Sections 8.6a. (iii) and (iv). The project site is underlain by Arlington fine sandy loam, which is well drained and has low runoff (PlaceWorks 2019a).

Lateral spreading. Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. The mass moves toward an unconfined area, such as a descending slope or stream-cut bluff, and has been known to move on slope gradients as little as one degree. Hazards from lateral spreading onsite are low due to the low potential for liquefaction in subsurface soils.

Subsidence. The major cause of ground subsidence is withdrawal of groundwater or pumping of petroleum reserves. The project site is not in an area of subsidence, and the project would not withdraw groundwater or petroleum (USGS 2018). The project would not pose substantial hazards to people or structures due to ground subsidence. Impacts would be less than significant.

Collapsible Soils. Collapsible soils shrink upon being wetted. Collapsible soils are typically geologically young, unconsolidated sediments of low density that may compress under the weight of structures. Because of past development, the top few feet of soil is artificial fill. During project construction, the grading operations would excavate, replace, and compact site soils to at least 90 percent. At project completion, well-compacted earth would underlie the project. All proposed structures would comply with all applicable laws pertaining to school construction, including the California Building Code; guidelines for evaluating and mitigating seismic hazards in California; and the California Geological Survey's Checklist for the Review of Geologic/Seismic Reports for California Schools, Hospitals, and Essential Services Buildings (CGS 2013). The DSA reviews and approves construction drawings for new public schools. As part of the DSA review process, RUSD is required to show how the project complies with the final engineering-level geotechnical report. This report includes, but is not

8. Impacts Found Not to Be Significant

limited to: identification of building setbacks, site preparation, fill placement, temporary shoring, groundwater seismic design features, excavation stability, foundations, soil stabilization, establishment of deep foundations, concrete slabs and pavements, surface drainage, cement type and corrosion measures, erosion control, shoring and internal bracing, and plan review.

The project design and development would incorporate all recommended measures outlined in the final engineering-level geotechnical study. Project implementation would not pose substantial hazards to people or structures due to collapsible soils, and impacts would be less than significant.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. Expansive soils contain substantial amounts of clay that swells when wetted and shrinks when dried; the swelling or shrinking can shift, crack, or break structures built on such soils. The project site soils are not mapped as having a high shrink-swell potential (Riverside 2018). RUSD would comply with DSA, California Building Code, and California Geological Survey requirements for soil stability. The project would not cause substantial hazards from expansive soils and impacts would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The project site is served by sewer laterals connecting to sewer mains in nearby roadways; project development would include installation of new laterals connecting to the new buildings. Development would not use septic tanks or other alternative wastewater disposal systems. No impacts would occur.

f) Directly or indirectly destroy unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. A paleontological resource is a natural resource characterized as faunal or floral fossilized remains but may also include specimens of non-fossil material dating to any period preceding human occupation.

One of Southern California's most historic inland fossil sites was once about two miles from downtown Riverside. In recent centuries, a south-trending bend in the Santa Ana River had cut into a large, steep embankment. The exposed cliff was often quarried for building material, in one case at a place known as "Campbell's Sand Pit." Through the first half of the twentieth century, people found fossils of Ice Age mammals among the sands of the Santa Ana River banks in the City of Riverside. In 1923, fragments of tusk and two mammoth molars were found in the sand pit, and in 1952, fragments of a mammoth jaw were discovered along the river near Grand Avenue. All of these fossils and others were gathered along this stretch of the Santa Ana River when its banks were still lined with citrus groves, small farms, and ranches. Beginning in the 1950s, these agricultural lands began to be converted to residential development, so that today none of the exposures can be seen, not even Campbell's Sand Pit. As of 2004, the area south of Mockingbird Canyon Reservoir is the only other portion of the planning area considered a place of paleontological importance. The project site is in an area of unknown prehistoric cultural resources sensitivity (paleontological) (Riverside 2007).

8. Impacts Found Not to Be Significant

Soil on the campus has been significantly disturbed by multiple construction projects over the past 129 years. Additionally, the Riverside Public Utilities has been providing water and power services to the City of Riverside since its founding in 1895. There are seven water lines within a 1,500-foot radius of the site, including a 36-inch transmission main that bisects the school (former Seventh Street alignment). Paleontological deposits are unlikely to be present in the project area due to the infrastructure built in the late 19th and early 20th centuries. Due to the disturbed nature of the project site, it appears highly unlikely that any subsurface paleontological resources would be discovered or disturbed. Project-related excavations are not expected to extend substantially deeper than excavations for previous construction. Therefore, project-related earthwork on the school campus is not anticipated to encounter buried archaeological resources. Paleontological impacts would be less than significant.

8.6 HAZARDS AND HAZARDOUS MATERIALS

The analysis in this section is based in part on the following information:

- *Phase I Environmental Site Assessment: Longfellow Elementary School Expansion Parcels*, PlaceWorks, January 2019.

Complete copy of this study is in the technical appendices of this Draft EIR as Appendix E.

Would the project:

- Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?**

Less Than Significant Impact.

Construction

Demolition of the two houses and accessory buildings, portable buildings, and asphalt and concrete paving and construction of the three new buildings, parking lot, and play yards would include the use of materials such as fuels, lubricants, and greases in construction equipment and coatings used in construction. However, the materials used would not be in such quantities or stored in such a manner as to pose a significant safety hazard. These activities would also be short term or one time in nature and would cease upon completion of the construction phase. Project construction workers would also be trained in safe handling and hazardous materials use.

Asbestos

Asbestos is the name of a group of silicate minerals that are heat resistant and thus were commonly used as insulation and fire retardant. Inhaling asbestos fibers has been shown to cause lung disease (asbestosis) and lung cancer (mesothelioma) (DTSC 2017). Beginning in the early 1970s, a series of bans on the use of certain asbestos-containing materials (ACMs) in construction were established by the EPA and the Consumer Product Safety Commission. Most US manufacturers voluntarily discontinued the use of asbestos in certain building products during the 1980s (USEPA 2016b).

8. Impacts Found Not to Be Significant

Because the buildings planned for demolition were built in 1900 and 1910 (residential) and some of the portable buildings in 1964, 1967, 1970, 1975, and 1977, it is anticipated that they contain asbestos. During demolition of buildings, asbestos would be removed, contained, and disposed. Requirements for limiting asbestos emissions from building demolition and renovation activities are specified in SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). California Government Code §§ 1529 and 1532.1 provide for exposure limits, exposure monitoring, respiratory protection and good working practice by workers exposed to lead and ACM. The Project would not subject people to substantial hazards from ACM or ACCM.

Lead-Based Paint

Lead was formerly used as an ingredient in paint (before 1978) and as a gasoline additive; both of these uses have been banned. Lead is listed as a reproductive toxin and a cancer-causing substance; it also impairs the development of the nervous system and blood cells in children (DTSC 2017). Lead-based paint is defined in Code of Federal Regulations Title 40 Part 745 as paint or other surface coatings that contain lead equal to or in excess of 1.0 milligram per square centimeter or 0.5 percent by weight. Those demolishing pre-1978 structures may presume the buildings contain lead-based paint without having an inspection.

It is likely that the paint on the buildings contains or formerly contained elevated lead concentrations. Due to its slow deterioration with time, the paint typically flakes off and accumulates in the adjoining soils. This can result in elevated lead concentrations in the soil adjoining older buildings. Due to the ages of the buildings to be demolished, all coated surfaces (paint, varnish, or glazed) are assumed to contain lead.

All lead-containing material abatement/removal work must comply with the EPA, US Occupational Safety and Health Administration, and SCAQMD regulations. Lead must be contained during demolition activities (California Health & Safety Code §§ 17920.10 and 105255). Title 29 Code of Federal Regulations (CFR) Part 1926 establishes standards for occupational health and environmental controls for lead exposure. The standard also includes requirements addressing exposure assessment, methods of compliance, respiratory protection, protective clothing and equipment, hygiene facilities and practices, medical surveillance, medical removal protection, employee information and training, signs, recordkeeping, and observation or monitoring. The project would not subject people to substantial hazards from lead-based paint.

Recognized Environmental Conditions

A recognized environmental condition (REC) is defined as the presence or likely presence of hazardous substances or petroleum products in, on, or at a property due to any release to the environment, under any conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment (ASTM 2013).

The Phase I Environmental Site Assessment (Phase I) concluded that there were no recognized environmental conditions, no historical recognized environmental conditions, and no controlled recognized environmental conditions at the residential properties. Due to the age of the residential buildings, the DTSC requires testing to assess for potential impacts to soil from lead-based paint and organochlorine pesticides from possible termiticide use. A Phase I Addendum was prepared to assess for potential lead-based paint and organochlorine pesticides from termiticides.

8. Impacts Found Not to Be Significant

A total of 28 soil samples were collected from 14 locations from 0 to 0.5 feet below ground surface (bgs) and from 2.5 to 3.0 feet bgs. Sample locations were selected based on surface covering, low lying areas, and proximity to driplines. Lead and pesticides (chlordane) that exceed DTSC screening levels were detected in the soil.

A Removal Action Program would be implemented with oversight from DTSC to remove soils around sampling locations where concentrations of lead and or chlordane exceeded DTSC screening levels. About 70.4 cubic yards (cy) of soil would be removed—33 cy from the 2210 Seventh Street parcel, and 37.4 cy from the 2226 Seventh Street parcel. Clean soil and fill material would be hauled to the site and compacted for the parking lot.

Soil Disturbance , Import and Export

Projects that involve earth-moving activities of more than 50 cubic yards of soil that contain identified toxic air contaminants (TACs) are subject to South Coast Air Quality Management (SCAQMD) Rule 1466-Control of Particulate Emissions from Soils with Toxic. Because the Project would involve earth-moving activities of more than 50 cubic yards, RUSD will sample and test soils for the presence of the TACs to determine if the Project is subject to SCAQMD Rule 1466. If the TACs are found, RUSD will comply with all relevant and appropriate requirements of SCAQMD Rule 1466. The project would not subject people to substantial hazards. Additionally, any imported soil must be certified as clean before being added to the school campus.

Demolition and Construction Activities

RUSD would be responsible for ensuring the safe removal of potential asbestos containing building materials and lead that may be encountered during demolition. RUSD would ensure that all construction related activities are completed in accordance with all applicable federal, state, and local regulations, including, but not limited, to the EPA's "Guidance on Conducting Non-Time-Critical Removal Actions Under Comprehensive Environmental Response, Compensation, and Liability Act; National Oil and Hazardous Substances Pollution Contingency Plan" and all applicable RUSD specifications and standards.

Construction contractors are required to comply with RUSD standard specifications for proper packaging, transportation, and disposal of any discovered hazardous materials before building construction starts. Specifically, construction contractors are required to comply with worker training, health and safety, hazardous material containment, and off-site transport, and disposal of contaminated soil. The project would not subject people or the environment to substantial hazards related to hazardous materials onsite or potentially onsite.

Hazardous materials are regulated by several agencies, including the EPA, the California Department of Toxic Substances Control, California Division of Occupational Safety and Health, the Riverside County Department of Environmental Health (DEH), and Riverside Fire Department. The requirements of these agencies would be incorporated into the design and operation of the project. These requirements would include providing for and maintaining appropriate storage areas for hazardous materials and installing or affixing appropriate warning signs and labels. Hazards to the public, the students, or the environment through the routine transport, use, or disposal of hazardous materials would be less than significant.

8. Impacts Found Not to Be Significant

Operation

Project operation would involve the use of the same chemicals currently used on campus, such as cleansers, pesticides, and paints. Use of hazardous materials during project operation would comply with the same regulations that would pertain to use of such materials during project construction. Project construction and operation would not cause significant hazards to the public or the environment through routine use of hazardous materials, and impacts would be less than significant

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. The use, handling, storage, and disposal of hazardous materials in the course of Project construction and operation would not pose a substantial hazard to the public or the environment from reasonably foreseeable accidental release. Compliance with the previously discussed regulations is already standard practice at the school, including training school staff to safely contain and clean up hazardous materials spills; maintenance of hazardous materials spill containment and cleanup supplies onsite; implementing school evacuation procedures as needed; and contacting Riverside County Department of Environmental Health Emergency Response Team and City fire department immediately pursuant to requirements of regulatory agencies. Impacts from reasonably foreseeable upset and accident conditions would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. Demolition and project construction would emit diesel exhaust, which is considered hazardous. However, the project construction period would be temporary. Exposure to diesel exhaust during the construction period would not pose substantial hazards to persons on or near the project site.

The only school within 0.25 mile of the project site is Longfellow Elementary School, which is part of the project site. Project construction and operation would not expose persons on a school campus to substantial hazards from hazardous materials. Impacts would be less than significant.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant Impact. California Government Code Section 65962.5 requires that lists of hazardous materials sites be compiled and available to the public. These lists include:

- Hazardous waste facilities subject to corrective action.
- Hazardous waste discharges for which the State Water Resources Control Board has issued certain types of orders.
- Public drinking water wells containing detectable levels of organic contaminants.

8. Impacts Found Not to Be Significant

- Underground storage tanks with reported unauthorized releases.
- Solid waste disposal facilities from which hazardous waste has migrated.

The Phase I ESA for the project included a regulatory agency environmental database search. The school campus is not included on any list compiled pursuant to California Government Code Section 65962.5. The findings are discussed in further detail in Section 8.8(a). Impacts would be less than significant.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The nearest airport is Flabob Airport in the City of Jurupa Valley about 2.7 miles west of the project site (Caltrans 2018). The site is not within the airport influence area or the airport land use planning area (RCALUC 2004). The project would not result in a new use that would interfere with air traffic patterns or increase traffic levels or change traffic locations such that it would result in a safety risk. No impact would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The City of Riverside Fire Department Emergency Services Division (ESD) is responsible for emergency response planning and hazard mitigation planning for the City. The City Emergency Operations Plan was adopted by the City Council in 2011. The City of Riverside Local Hazard Mitigation Plan—part of the 2012 Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan—was adopted in 2015.

RUSD emergency preparedness and response planning and coordination are currently established with the Riverside County Office of Education. The Office of Education Emergency Preparedness Program outlines emergency response and recovery plans, protocols, and procedures. This program is already in place at all RUSD schools.

Construction and operation of the new school buildings would not interfere with any other existing emergency response plans or emergency evacuation plans. No impact would occur.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The project site is not in a fire hazard severity zone mapped by the California Department of Forestry and Fire Protection; the nearest Very High Fire Hazard Severity Zone is about 1.5 miles northeast of the site (CAL FIRE 2010). Additionally, because the proposed project plans do not result in an increase in student enrollment, the project would not result in an increased risk compared to the current conditions. The project would not place people or buildings at risk from wildfires, and no impact would occur.

8. Impacts Found Not to Be Significant

8.7 HYDROLOGY AND WATER QUALITY

Would the project:

- a) **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?**

Less Than Significant Impact. A significant impact would occur if the project discharges water that does not meet the quality standards of agencies which regulate surface water quality and water discharge into stormwater drainage systems. A significant impact would also occur if the project does not comply with all applicable regulations for surface water quality as governed by the State Water Resources Control Board.

New construction projects can result in two types of water quality impacts: (1) short-term impacts from discharge of soil through erosion, sediments, and other pollutants during construction and (2) long-term impacts from impervious surfaces (buildings, roads, parking lots, and walkways) that prevent water from being absorbed/soaking into the ground, thereby increasing the pollutants in stormwater runoff. Impervious surfaces can increase the concentration of pollutants, such as oil, fertilizers, pesticides, trash, soil, and animal waste, in stormwater runoff. Runoff from short-term construction and long-term operation can flow directly into lakes, local streams, channels, and storm drains and eventually be released untreated into the ocean.

The project would be constructed in an area that is already developed and already producing nonpoint-source pollutants that are carried by storm and irrigation water into storm drains in the surrounding streets. The Box Spring Storm Drain passes under the school, continuing westward (partway in Mission Inn Avenue) until it discharges into the Santa Ana River about 2.3 miles to the west (RCFC 2018). Storm drain inlets are along Seventh Street and the cul-de-sac, Eucalyptus Avenue, and Franklin Avenue.

Construction Phase

Pursuant to Section 402 of the Clean Water Act, the US Environmental Protection Agency has established regulations under the National Pollution Discharge Elimination System program to control direct stormwater discharges. In California, the State Water Resources Control Board administers the NPDES permitting program and is responsible for developing permitting requirements. The NPDES program regulates industrial pollutant discharges, including construction activities for sites larger than one acre. Since implementation of the proposed project would disturb more than one acre, the proposed project would be subject to the NPDES Construction General Permit requirements.

Projects obtain coverage by preparing and implementing a Stormwater Pollution Prevention Plan that estimates construction-related sediment risk to receiving waters and specifies BMPs that would be used to minimize stormwater pollution. Categories of BMPs used in SWPPPs are described in Table 8-2 in Section 8.5(b), *Geology and Soils*. Construction impacts to stormwater quality would be less than significant.

Operation Phase

After completion of the project, ground surfaces would be either hardscape or maintained landscaping, and no large areas of exposed soil would be left to erode off the site. Waste discharge requirements for discharges to

8. Impacts Found Not to Be Significant

municipal storm drain systems (MS4s) in the Riverside County portion of the Santa Ana River Watershed are set forth in Order No. R8-2010-0033, NPDES Permit No. CAS618033 issued by the Santa Ana RWQCB (RCFC 2019). In compliance with this requirement, the District would implement LID methods.

The Riverside County Flood Control and Water Conservation District Standard Manual was developed as part of the municipal stormwater program to address stormwater pollution from new developments and redevelopment projects. LID principles are described further in Section 8.5(b), *Geology and Soils*. Operational phase would not substantially degrade surface or groundwater, and impacts would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. The campus is above the Riverside-Arlington Subbasin of the Upper Santa Ana Valley Groundwater Basin (DWR 2018). Project development would not substantially increase impervious areas onsite and thus would not interfere with groundwater recharge. The project does not include new groundwater wells that would extract groundwater from the aquifer. Construction and operation of the school improvements would not lower the groundwater table or deplete groundwater supplies. Furthermore, the campus does not provide intentional groundwater recharge. Therefore, the project would not interfere with groundwater recharge. Impacts would be less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in a substantial erosion or siltation on- or off-site;

Less Than Significant Impact. There are no streams or rivers on the project site. The school and expansion site are fully developed, and the new buildings and other improvements would not significantly increase impermeable surfaces on campus. Stormwater currently flows into storm drains.

Construction Phase

During construction, erosion and siltation from the disturbed areas may occur. Construction-related activities that expose soils to rainfall/runoff and wind are primarily responsible for erosion. Construction activities would expose soil through excavation, grading, and trenching. Unless adequate erosion controls are installed and maintained during construction sediment may enter storm drains. The project construction would be subject to the Statewide Construction General Permit and implementation of BMPs specified in the SWPPP described in Section 8.5(b), *Geology and Soils*. These requirements include provisions for erosion and pollution control measures to ensure water quality in stormwater runoff. Impacts would be less than significant.

Operation Phase

The project would not change the drainage pattern of the campus or its surroundings. The entire campus and expansion site would discharge less stormwater because of LID requirements. County Flood has

8. Impacts Found Not to Be Significant

prepared the Standard Manual to comply with the requirements of the NPDES Municipal Separate Storm Sewer System (MS4) Permit for stormwater and non-stormwater discharges from the MS4 within the Santa Ana Watershed. Additionally, the California Code of Regulations' Model Water Efficient Landscape Ordinance requires water conservation for landscaping (23 CCR Chapter 2.7). Thus, project development would not cause substantial erosion. Impacts would be less than significant.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

Less Than Significant Impact. The Box Spring Storm Drain passes under the school, continuing westward (partway in Mission Inn Avenue) until it discharges into the Santa Ana River about 2.3 miles to the west (RCFC 2018). Storm drain inlets are along Seventh Street and the cul-de-sac, Eucalyptus Avenue, and Franklin Avenue. The drainage pattern of the completed project would be similar to existing conditions. Pursuant to LID standards and the state's Model Water Efficient Landscape Ordinance (23 CCR Chapter 2.7), the drainage system would discharge a net decrease in runoff to municipal storm drains. Thus, project development would not result in flooding on- or off-site, and no impacts would occur.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

Less Than Significant Impact. The drainage pattern of the completed project would be similar to existing conditions. Pursuant to LID standards and the Model Water Efficient Landscape Ordinance, the drainage system would discharge a net decrease in runoff to municipal storm drains. Under current regulations that retain and treat storm water on site, the project would not cause substantial water pollution. Runoff water impacts would be less than significant.

iv) Impede or redirect flood flows?

No Impact. The project site is outside of any dam inundation zones which are mapped pursuant to Section 6161 of the California Water Code (CDWR 2019). The proposed project would take place within the footprint of the existing school site and adjacent residential parcels, which are within Zone X (0.2 percent/500-year flood hazard) (Flood Insurance Rate Map ID #06065C076G) (FEMA 2008). Since the project site is outside of a 100-year flood zone, the project buildings would not impede or redirect flood flows. No impact would occur.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less Than Significant Impact. The project site is outside of 100-year flood zones mapped by the Federal Emergency Management Agency (FEMA 2008).

A seiche is an oscillating surface wave in a restricted or enclosed body of water, generated by ground motion, usually during an earthquake. Seiches are of concern for water storage facilities, because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam, or other artificial body of water. There are no reservoirs or water storage tanks, at or above ground level, that would pose a flood hazard to the site due to a seiche.

8. Impacts Found Not to Be Significant

Tsunamis are a type of earthquake-induced flooding produced by large-scale sudden disturbances of the sea floor. Tsunami waves interact with the shallow sea floor when approaching a landmass, resulting in an increase in wave height and a destructive wave surge into low-lying coastal areas. The project site is at an elevation of about 908 to 927 feet above mean sea level and is about 40 miles inland from the Pacific Ocean; it is thus not at risk of flooding due to tsunami.

Therefore, because the school is not at risk of flooding, the project would not release pollutants during these flooding events. No impact would occur, and no further analysis is required.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. As described above, the District would comply with the water quality requirements. The project would not obstruct implementation of a water quality control plan from Santa Ana RWQCB, CCR Title 23, or County Flood. The project would not affect groundwater and would not obstruct implementation of a sustainable ground water management plan. Therefore, no impacts would occur.

8.8 LAND USE AND PLANNING

Would the project:

a) Physically divide an established community?

No Impact. The project site and surrounding land is fully developed with school, residential, and commercial uses. The project would take place within the campus boundaries and on the adjacent residential parcels and would not divide an established community. No impact would occur.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The zoning designation for both the school and the expansion site (two residential parcels) is PF (Public Facilities). The Public Facilities zone “is established to create and preserve areas for official and public uses of property and related activities, including civic center, public schools, public buildings, parks and recreation facilities, waterworks and drainage facilities, and similar areas...” (Riverside 2019). The new buildings would be similar in height to the existing school buildings.

The demolition of the residential buildings and new construction would not conflict with existing plans, policies or regulations adopted for the purpose of avoiding or mitigating environmental effects. No impacts would occur.

8. Impacts Found Not to Be Significant

8.9 MINERAL RESOURCES

Would the project:

- a) **Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?**

No Impact. The site is mapped as “Urban Area,” and is not in an area where significant mineral resources are known to be present or are considered likely to be present by the California Geological Survey (CGS 2008). The project site is built out with a school and houses. Neither the site nor the surrounding community is available for mining. The project would not cause a loss of availability of a known mineral resource valuable to the region and the state, and no impact would occur.

- b) **Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

No Impact. No mineral resources are mapped on or near the site in the City of Riverside General Plan (Riverside 2012). Therefore, development of the project would not cause a loss of availability of a mining site, and no impact would occur.

8.10 POPULATION AND HOUSING

Would the project:

- a) **Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

No Impact. The project would make physical changes to an existing school campus and would not increase the capacity of the school or induce population growth. New roads, expanded utility lines, and housing that could induce population growth would not be constructed or be required as part of the project. No impacts related to population growth would occur.

- b) **Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

Less Than Significant Impact. The project includes acquisition of two residential parcels, 2210 Seventh Street (APN 211-143-008) and 2226 Seventh Street (APN 211-143-007); the alley adjacent to the south side of the residential parcels; and the Seventh Street cul-de-sac north of the residential parcels.

The two homes would require relocation of the families living there. Relocation would not necessitate the construction of replacement housing elsewhere; therefore, impacts would be less than significant.

8. Impacts Found Not to Be Significant

8.11 PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?

Less Than Significant Impact. The City of Riverside Fire Department (RFD) currently provides fire protection and emergency medical services to the campus. The RFD Fire Station 4 at 3510 Cranford Avenue is about 0.83 mile east of the site. Another RFD fire station is Station 1 at 3401 University Avenue about 1 mile west of the project site. The project would not make any programmatic changes to the school's operation and would not increase student capacity; therefore, it would not increase the need for fire protection services. Additionally, the project would not require construction of new or expanded fire stations. RUSD is required to coordinate with RFD regarding fire equipment access during construction. Impacts would be less than significant.

b) Police protection?

Less Than Significant Impact. RUSD has five school resource officers assigned by the City of Riverside Police Department (RPD), with more personnel dispatched during an emergency (RUSD 2019). The nearest police station to the project site is the Riverside Police Department at 4102 Orange Street, approximately 0.8 mile west. The project may cause a very slight increase in demands for police services during construction from possible trespass, theft, and/or vandalism. Active construction areas would be fenced, and the entire campus is currently fenced and would remain secured outside of working hours. Any increase in police demands would be temporary and would not require construction of new or expanded police facilities. General campus activities are under the supervision of the school administrators and staff. The project would not increase student population or demand and would not result in new adverse impacts on existing police service. Impacts would be less than significant.

c) Schools?

No Impact. The project would make physical changes to the existing campus to enhance existing school programs. The environmental effects of the construction and operation of the project is considered throughout the environmental analysis in this EIR. The project would not induce growth in the community, increase students or staff at the school, or otherwise increase demand for school services. There would not be an adverse impact on any existing schools as the project's plan is to benefit the campus through modernization. No impacts to schools would occur.

d) Parks?

No Impact. The project would not have an adverse physical impact on any parks or necessitate the construction of new parks. The project would not induce growth in the community, increase students or staff

8. Impacts Found Not to Be Significant

at the school, or otherwise increase the use of or demand for parks. Therefore, it would not result in the need for construction of new recreational facilities. No impacts to parks would occur.

e) Other public facilities?

No Impact. The project would not result in impacts associated with the provision of other new or physically altered public facilities (e.g., libraries, hospitals, childcare, teen or senior centers). Physical impacts to public services are usually associated with population in-migration and growth, which increase the demand for public services and facilities. The project would not result in an increase in students or staff or induce population growth. Therefore, no impacts to other public facilities would occur.

8.12 RECREATION

Would the project:

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. There are existing play facilities at Longfellow Elementary School, and the project proposes development of new play facilities. The project would not increase the use of existing neighborhood and regional parks or other recreational facilities. The project would not result in an increase of students or staff at the school and would not increase population in the surrounding community; therefore, it would not result in the need for construction of new recreational facilities or cause physical deterioration of neighborhood and regional parks or other recreational facilities. No impacts to existing parks.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

No Impact. The project includes improvements to asphalt playgrounds. The environmental effects of the construction and operation of the project are considered throughout the environmental analysis in this EIR. The project would not require the construction or expansion of additional recreational facilities that would have an adverse effect on the environment. No impacts related to recreational facilities would occur.

8.13 TRANSPORTATION AND TRAFFIC

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less Than Significant Impact. The proposed project plans would be consistent with the existing policies at Longfellow Elementary School that support alternative transportation, such as having bus loading/unloading zones on site. Additionally, the Riverside Transit Authority (RTA) provides public transit bus services to the City of Riverside, including the project vicinity. The RTA operates bus routes along University Avenue and Mission Inn Avenue/Eucalyptus Avenue.

8. Impacts Found Not to Be Significant

b) Conflict or be inconsistent with CEQA Guidelines § 15064.3(b), which pertains to vehicle miles traveled?

Less Than Significant Impact. CEQA Guidelines § 15064.3 eliminates auto delay, level of service (LOS), and similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts.

[It] describes specific considerations for evaluating a project's transportation impacts. Generally, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) ... (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact.

Daily VMT is an average of the total number of miles traveled by all vehicles each day on principal arterials in the City of Riverside. This is then divided by the city's total population for daily VMT per capita. Data for the figures are reported annually in the Caltrans publication, *California Public Road Data*.

The City of Riverside, along with other agencies, has an opt-in period until July 1, 2020, to adopt the guidelines and new VMT-based thresholds. Currently the City continues to use its established LOS criteria. The project includes a new one-way two-lane southbound drop-off/pick-up zone from Franklin Avenue. Franklin Avenue at Seventh Street and Franklin Avenue at the egress driveway would operate at acceptable LOS A during peak hours. The project would not conflict or be inconsistent with the City of Riverside traffic analysis methodology. Impacts would be less than significant.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. Incompatible uses for a school would include industries such as agricultural operations where soil tilling and/or pesticide use creates air pollution, or a logistic distribution centers that have large tractors, semi-trailer trucks, and oversized equipment consistently traveling the local roadways that may create a hazard to cars or pedestrians; or hazardous industrial uses. Circulation design that would result in vehicular and/or pedestrian safety hazards would be sharp curves or dangerous intersections. These typically consist of new roads or driveways on busy roadways with left or right turns that force cross-traffic and create conflicts between cars and people. The project would not create new roads or dangerous driveway turning movements.

Construction

During construction, equipment, trucks, and workers would drive to and from the staging area on campus. Construction trips would be spread throughout the workday and would not occur during peak traffic periods. Also, construction trips would not overlap with student drop-off and pick-up. RUSD's construction contractor would prepare a construction worksite traffic control plan prior to commencement of construction that would be reviewed by the Traffic Engineering Division of the City of Riverside Public Works Department. This plan would establish methods to avoid conflicts between the construction traffic and the existing vehicle, pedestrian, and bicycle traffic. RUSD's construction BMPs, identified in the construction worksite traffic control plan, would include the location of any haul routes, hours of operation, protective devices, warning signs, and access to abutting properties. Additionally, construction fencing would be used on campus to separate construction

8. Impacts Found Not to Be Significant

zones from students and to ensure safety. The project construction would not create new hazards or conflicts, and impacts related to vehicular or pedestrian and bike safety would be less than significant.

Operation

The project would not increase students or staff at the school and would therefore not increase operational traffic on or around the campus. The project would not alter the use of the campus, and no new incompatible uses would be introduced. Therefore, no operational impacts would occur.

d) Result in inadequate emergency access?

No Impact. The project-related access driveways and internal circulation roadways would accommodate emergency ingress and egress by fire trucks, police units, and ambulance/paramedic vehicles. All access routes are subject to and must satisfy the District and the RFD design requirements. The project plans include adding a new parking lot and site access lane along Franklin Avenue, which would increase site access for emergency services. The project site is an existing school in a developed area that is approximately 0.8 mile west of Riverside City Fire Station 4 and is approximately 0.8 mile east of the Riverside Police Department. The project would not result in inadequate emergency access. No impact would occur.

8.14 TRIBAL CULTURAL RESOURCES

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

Less than Significant Impact. Assembly Bill 52 (AB 52) requires meaningful consultation with California Native American tribes on potential impacts to tribal cultural resources, as defined in PRC Section 21074. Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either eligible or listed in the California Register of Historical Resources or local register of historical resources.

As part of the AB 52 process, Native American tribes must submit a written request to RUSD (lead agency) to be notified of projects within their traditionally and culturally affiliated area. RUSD must provide written, formal notification to those tribes within 14 days of deciding to undertake a project. The tribe must respond to RUSD within 30 days of receiving this notification if they want to engage in consultation on the project, and RUSD must begin the consultation process within 30 days of receiving the tribe's request. Consultation concludes when either 1) the parties agree to mitigation measures to avoid a significant effect on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes mutual agreement cannot be reached.

No tribal cultural resources on or within one mile of the site are listed in the National Register of Historic Places (NPS 2018); as California State Historical Landmarks or Points of Historical Interest (OHP 2019); or as City of Riverside Landmarks (Riverside 2002). The project would not impact tribal cultural resources listed on any of the preceding registers of historic resources. Impacts would be less than significant.

8. Impacts Found Not to Be Significant

- b) **A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

Less than Significant Impact. Tribal contacts were provided by City of Riverside (email dated December 7, 2018). The District notified 10 tribes about this project on December 26, 2018 through the CEQA Notice of Preparation. The Agua Caliente Band of Cahuilla Indians (letter dated January 2, 2019) and the San Manuel Band of Mission Indians (letter dated January 3, 2019) responded that they had no comments and did not want to consult on the project.

Under subdivision (c) of Public Resources Code § 5024.1 California Native American tribes have requested formal notice of proposed projects as follows: Gabrieleño Band of the Mission Indians – Kizh Nation, letter dated July 5, 2015, and Pechanga Band of Luiseño Mission Indians, letter dated July 7, 2015.

The District notified these Tribes about the proposed project at Longfellow Elementary School in a letter dated May 3, 2019 and sent via certified mail and email to:

- Andrew Salas, Tribal Chairman, Gabrieleño Band of the Mission Indians – Kizh Nation
- Ana Hoover, Cultural Analyst, Pechanga Band of Luiseño Mission Indians

The District did not receive any responses. The impacts of the project pursuant to criteria in subdivision (c) of Public Resources Code § 5024.1 would be less than significant.

8.15 UTILITIES AND SERVICE SYSTEMS

Would the project:

- a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

No Impact. The school is in City of Riverside. The project site is completely developed, is currently using utilities, and is surrounded by development. The project would serve existing and future students living in the region and would not increase the student population or utility demands. The project would not require the relocation or construction of new facilities for water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, and no impact would occur.

- b) **Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

No Impact. The school currently serves students living in the region, and the project would not increase the student population or long-term water demands. Water would be used on site during construction for dust suppression and similar activities. The small amount of water that would be used for the project construction would not result in the need for new or expanded water entitlements. Installation of landscape and irrigation

8. Impacts Found Not to Be Significant

improvements would comply with regulations for water conservation; therefore, the project would not result in an increase in water demands for landscaping. No impact would occur.

- c) **Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

No Impact. The school would continue to serve students currently living in the region and would not generate an increase in the regional student population or the amount of wastewater treatment required. The project would not affect wastewater treatment capacity. No impact would occur.

- d) **Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

Less Than Significant Impact. In 2017 about 96 percent of the solid waste landfilled from the City of Riverside was disposed of at the three facilities: Badlands Sanitary Landfill, Moreno Valley; El Sobrante Landfill, Corona; Lamb Canyon Sanitary Landfill, Beaumont (CalRecycle 2018a). The three facilities have total residual disposal capacity of over 10,000 tons per day.

Demolition and construction waste would be generated and disposed of at local landfills. The excavated soil would be segregated and managed as non-hazardous, non-Resource Conservation and Recovery Act (RCRA) hazardous, or RCRA hazardous waste. The project may require haul and disposal of contaminated soil and material (see Section 8.6, *Hazards and Hazardous Materials*). Contaminated soil and material would result in an incremental and intermittent increase in solid waste disposal at licensed landfills and other waste disposal facilities.

CALGreen; Title 24, California Code of Regulations, Part 11 requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse. Therefore, construction and demolition waste generated during construction of the project would not adversely impact such landfills. Impacts would be less than significant.

- e) **Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

No Impact.

Assembly Bill 1826 (AB 1826; California Public Resources Code §§ 42649.8 et seq.) requires recycling of organic matter by businesses, and multifamily residences of five or more units, generating such wastes in amounts over certain thresholds. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. Multifamily residences are not required to have a food waste diversion program. The school recycles organic matter and project operation would comply with AB 1826.

8. Impacts Found Not to Be Significant

CALGreen (CALGreen; Title 24, California Code of Regulations, Part 11) requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse. The District would comply with this regulation.

The school administrators and the District currently comply with federal, state, and local statutes and regulations related to solid waste, and would continue this practice. No impact would occur.

8.16 WILDFIRE

No Impact. Wildland fire protection in California is the responsibility of the state, local government, or the federal government. The State of California has the primary financial responsibility for the prevention and suppression of wildland fires in State Responsibility Areas (SRA). The SRA cover over 31 million acres, for which the California Department of Forestry and Fire Protection (CAL FIRE) provides a basic level of wildland fire prevention and protection services.

Local responsibility areas (LRA) include incorporated cities, cultivated agriculture lands, and portions of the desert. LRA fire protection is typically provided by city fire departments, fire protection districts, counties, and CAL FIRE under contract to local government (CAL FIRE, FAQs). CAL FIRE uses an extension of the SRA fire hazard severity zone model as the basis for evaluating fire hazard in LRAs. The LRA hazard rating reflects flame and ember intrusion from adjacent wildlands and from flammable vegetation in the urban area. The RFD currently provides fire protection and emergency medical services to the city.

Fire hazard severity zones (FHSZ) are identified as moderate, high and very high in an SRA, and as very high in an LRA. The nearest FHSZ in the SRA is a “very high” zone about 1.9 miles northeast in the Box Springs Mountain Reserve Park. The nearest FHSZ in the LRA is 1.5 miles northeast in the area south-southeast of the Sugarloaf Water Reservoir (CAL FIRE 2012). Land between the edge of the nearest FHSZ and the project site is dense urban development, SR-60/I-215, and the University of California, Riverside.

The project site is not in or near state responsibility areas or lands classified as high fire hazard severity zones; therefore, no impact would occur. The remaining questions are not relevant to the project.

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9. Significant Irreversible Changes Due to the Proposed Project

Section 15126.2(c) of the CEQA Guidelines requires that an Environmental Impact Report (EIR) describe any significant irreversible environmental changes that would be caused by the proposed project should it be implemented.

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highways improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Future development in accordance with the proposed project would include construction activities that would entail the commitment of nonrenewable and/or slowly renewable energy resources, human resources, and natural resources such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, water, and fossil fuels. Future development would also require the use of natural gas and electricity, petroleum-based fuels, fossil fuels, and water. The commitment of resources required for the construction and operation of future development would limit the availability of such resources for future generations or for other uses during the life of the project.

Acquisition and redevelopment of the Expansion Site with the proposed driveway and parking lot are long-term irreversible commitments of land that would result in the loss of a historic building.

Given the low likelihood that the developed land would revert to lower intensity uses or to its current form, the proposed project would generally commit future generations to these environmental changes.

9. Significant Irreversible Changes Due to the Proposed Project

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10. Growth-Inducing Impacts of the Proposed Project

Pursuant to Sections 15126(d) and 15126.2(d) of the CEQA Guidelines, this section is provided to examine ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also required is an assessment of other projects that would foster other activities which could affect the environment, individually or cumulatively. To address this issue, potential growth-inducing effects will be examined through analysis of the following questions:

- Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?
- Would this project result in the need to expand one or more public services to maintain desired levels of service?
- Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?
- Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

Please note that growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment. This issue is presented to provide additional information on ways in which this project could contribute to significant changes in the environment, beyond the direct consequences of developing the land use concept examined in the preceding sections of this EIR.

Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?

The project would not remove obstacles to growth. Longfellow Elementary School is already served by utilities, and project development would not involve construction or extension of major infrastructure. The campus expansion would be permitted under the existing Public Facilities/Institutional (PF) General Plan land use designation and Public Facilities (PF) zone, and project implementation would not involve changes to land use regulations for the site.

10. Growth-Inducing Impacts of the Proposed Project

Would this project result in the need to expand one or more public services to maintain desired levels of service?

The project would not increase the total District enrollment or the student population at Longfellow Elementary School. The project would serve the existing elementary school population and programs and would not necessitate an expansion of other services or facilities (e.g., police and fire protection, parks, schools, and libraries) in order to maintain the current or desired levels of service. Therefore, the project would not result in this growth-inducing impact.

Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?

During construction, a slight increase in the number of design, engineering, and construction-related jobs would be created. This would last until the project's construction is completed and would be a direct, but temporary, employment increase. The project would serve the existing school programs and would not encourage or facilitate long-term economic effects that could result in other environmental effects. The project would not result in this indirect growth-inducing effect.

Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

The project site and its surrounding area are already developed. The project consists of campus improvements, new buildings, the removal of school buildings, acquisition of two parcels and demolition of residential buildings. This action would not promote growth because it involves the demolition and replacement of buildings within and adjacent to an existing school campus. Pressures to develop other land in the surrounding area would derive from regional economic conditions and market demands for housing, commercial, and industrial land uses that are not directly or indirectly influenced by the project. Approval of the project would not, therefore, involve a precedent setting action that could be applied to other properties and thereby encourage or facilitate growth that would not otherwise occur.

11. List of Preparers

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